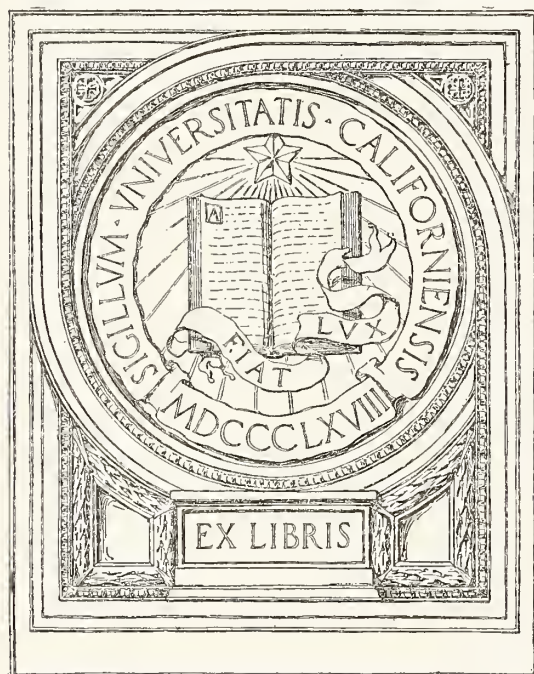





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# The Journal of the Iowa State Medical Society

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Volume IX, January to December

1919

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PRESIDENT'S ADDRESS, SOUTHWEST-  
ERN IOWA MEDICAL SOCIETY,  
SEPTEMBER 3, 1918

J. C. OHLMACHER, M.D., Clarinda

Dominant in the mind, are thoughts of that gigantic struggle going on in Europe, in which our nation is now taking so conspicuous a part. Every thought of the busy day, and of the wakeful night, is tinged with a consciousness of that horror, so that thoughts independent of it, and acts not intimately associated with it, seem of but small significance, and incapable of commanding deep and serious attention. Yet those who think and are in the habit of putting their thoughts to practical service, realize that we have many problems here at home; some old, others new; problems that stand out as never before; problems so fraught with significance, so pregnant with possibilities of great good or great evil, that they cry out for satisfactory and early solution, that our country's progress be co-extensive with the great sacrifices she has made, is making, and will continue to make, until there is builded a foundation so wondrous strong, so fruitful of right and justice, upon which to enthrone a triumphant democracy, that all the world may garner therefrom, and profit thereby.

The economic and social welfare of an individual, family, community, state, or nation, rests largely upon health, so that many of the problems which should be, *must be solved*, are largely medical, and thus in keeping with the special activities of our profession.

While our boys, with the Allies, are fighting and gradually shaping a lasting victory over the common enemy abroad, we at home must marshal our forces against many potent enemies in our midst. There is a supreme enemy, whose significance as a devastator of nations is greater than all the Teutonic forces combined. This enemy must be met as intelligently, as persistently, as vigorously, and as fearlessly as must the enemy "over there," if victory is to come, and our nation's future assured. It is not a new enemy that

now presents itself, and threatens to undermine and weaken us. It is as old as the race itself.

Desultory battles have been waged against it, to little or no avail. It has steadily gained strength, until now, by insidious, damnable activity, it bids fair to ruin a nation.

Throughout the past fifteen or twenty years, fearless, far-sighted, broad-gauged generals of our profession have mapped out, and tried to put into execution, effective campaigns against this foe, but their brave efforts have to this day been largely negated by the cowardly inactivity, or the half-hearted activity of many in our profession and in the law making branches of our states and nation, whose sentimental vaporings have been equaled only by the preponderance of yellow streaks among them. Sentiment has ruled where good horse sense should have been supreme. Half-way, inefficient measures, more dangerous in their implication of promised security than complete passiveness, have here and there been adopted. Only here and there, along a vast battle front, have proper tactics been inaugurated, and anything like success assured.

Iowa is on the firing line, but so far has done nothing but partially reveal the strength of the enemy, by shooting up a few sky rockets. Sky rockets make some noise, and a rather nice display, but they don't harm or scare the enemy. The time is ripe; the psychological moment has come, when we should bomb, bombard, gas and turn liquid fire into the trenches of the enemy, in an effort to annihilate him.

The dangerous and damnable foe which we must meet in this manner, fights under the ignominious banner of syphilis and gonorrhea. That the foe is damnable and dangerous, is attested by the casualty list of Iowa alone. This item gives but a brief hint of the large number in this state who have succumbed. It is contained in an early report from the Surgeon General's office, and is about as follows:

"Of the registrants from Iowa who reported for training at the various camps, up to the first of May of this year, 10,200 were found to be afflicted with syphilis, and a far greater number

suffered from gonorrhea." Appalling, is it not?

Even the strictest regulation of prostitution will not go very far towards stamping out the evil. In the strict sense, prostitution is responsible for but a comparatively small per cent. of the disease. How about the thousands of young men, coming largely from our rural district, who were found infected? Think you that the most of them acquired the disease from some woman who offered herself to lewdness for hire, or was the disease acquired from some of the immoral girls found in all neighborhoods, many of whom come from the so-called best families in town, girls who, through an hereditary mental deflection, or woeful lack of wholesome home training in sex matters, have fallen easy prey to the sex allurements of the male, and have reached a condition where their generosity in the matter of sexual gifts, has little or no limitation.

Fearless, vigorous, and intelligently-directed educational efforts, applied to every community, will result in much good, when directed towards this phase of the evil, but it will fall far short of the necessary requirements.

There is only one way to efficiently handle the situation, and that is through the adoption and strict enforcement of a law which will compel all individuals afflicted with gonorrhea or syphilis, to report to the proper health authorities; which will make it mandatory for anyone having cognizance of the existence of either of these diseases, to report to the proper authorities; and which will provide strict punishment for any willful infringement of the law.

Thus, a severe fine or jail sentence should be given the civilian who fails to comply with the law, and the license of the physician or druggist should be revoked, if they fail in their duty in the matter. District hospitals should be established throughout the state, for isolation and treatment of all cases and no infected individual should be allowed his liberty until he is incapable of spreading the disease. There is nothing new, so far as I know, in the measures proposed. I have no doubt that they have been proposed again and again. In fact, I am told that some states have recently adopted similar laws.

*Now is the time to get busy* and see that some such law is enacted. In the name of patriotism, we as individuals and collectively, are gladly submitting to the most drastic regulations; what and how much we shall eat and drink, whether we shall idle, work, or fight, what we must pay for this or that privilege, etc., etc., is all determined by a central governing board at Washington.

Then let us, in the name of patriotism, in the name of democracy, in the name of progress, in

the name of unborn imbecile, epileptic and blind children, and in the name of God and humanity, say to all, that no one will be privileged to willfully or ignorantly spread this or that dread disease in any community of this great commonwealth; that their liberty to do so, is curtailed by statutory mandates, and that any willful infringement of those mandates will meet with severe punishment.

In the meantime, we as individual physicians, and as medical organizations, should enter upon a vigorous campaign to enlighten the public in this matter. By writing to the War Department Commission of Training Camps, Social Hygiene Division, at No. 105 West Fortieth street, New York City, an abundance of ammunition to carry on the campaign, will be forthcoming.

Another subject which we must fearlessly approach and frankly meet, relates to the problem of insanity. This problem is one of the gravest which confronts us as physicians and civilians, and it is one that has received but scant attention from any except those intimately associated with the care of these unfortunates.

The economic loss to the state in the care of the mentally afflicted, and the greater loss through the withdrawal of these individuals from productive pursuits, is indeed immense, and will become greater and greater as insanity is steadily increasing. When we realize that abnormal mental activity rests solely on a physical basis; that a diseased brain is frequently an accompaniment of pathological processes elsewhere in the body, and that hereditary insanity probably means no more or less than a lowered resistance of the central nervous system to extraneous and endogenous assaults, we are forced to the conclusion that insanity is subject to much better control through timely, vigorous and intelligently directed efforts. The final solution of this problem, therefore, rests chiefly with the medical profession at large, and the hearty cooperation of the civilian population. The general practitioner should possess a better knowledge of mental diseases with their many ramifications. They should gladly avail themselves of every opportunity to enhance their knowledge of insanity and allied troubles. No medical program should be considered complete which does not provide for at least one paper on some phase of the subject.

The subject of nervous and mental diseases, as taught in practically all medical schools of this country, is wholly inadequate to the importance of the subject, and to its demands. Full time professorships should be established in all medical schools. The medical department of every state university should provide for such an

exigency, and a neuro-psychopathic hospital fully equipped and manned to treat and study such diseases, should be established. The same rules which govern the provision of clinical material for class instruction as now prevail in the general hospitals connected with medical schools, should be applied here.

Large sums of money are set aside by each legislature to provide investigation and treatment of diseases of cows, swine, productive plants, etc., but not one cent to encourage research into this most dreadful of all human afflictions, insanity. This is a sad commentary for such a state as ours, and indirectly reflects a mental inertness on the part of the medical profession, to certain very important medical needs of this commonwealth. By consistent, concerted and intelligently directed effort on the part of an organized medical profession, much needed legislation along this and similar lines can be effected by direct appeal to our law-making bodies.

We now have a state lecturer on tuberculosis, and much good has resulted from his activities, and the conjoint activities of men of various professions, particularly ours, in educating the public how to live to prevent tuberculosis and kindred diseases. *Why not have a state lecturer on mental hygiene?*

Intelligent and systematic effort towards the elimination of tuberculosis in this state, has resulted in much good. The average citizen is now living under much improved conditions, and the average resistance to respiratory infections is higher. A few years ago, it was thought a novelty for a house to be provided with a sleeping porch. Now, no new house is considered complete which does not provide one.

A part of the tuberculosis program is the medical inspection of school children, and the value of this procedure is attested by the condition of the last registrants. Most of them have good teeth, tonsils removed, and are free from evidence of pulmonary trouble.

In this state there is no provision for the quarantine of measles, and no effective means of handling the disease, exists. Last year many children were allowed to go to our public schools, though in the midst of the disease, and a rather severe epidemic occurred in our community. This is really a deplorable state of affairs. It has long been recognized by thoughtful medical men, that measles is one of the worst diseases we have to contend with, so far as potential evil is concerned. Many respiratory infections follow in its wake, and lung specialists now recognize the direct bearing between this disease and the development of tuberculosis. We must either again place the

affection among the quarantinable diseases, or at least, prevent the afflicted from mingling with the public.

Iowa has a sanitarium for the tuberculous, which is doing wonders in a therapeutic and educational way. We also have one or two excellent private sanitariums, and a few county hospitals for the treatment of this disease. Each county should support an up-to-date hospital for the treatment and isolation of recent and advanced cases of tuberculosis. Our present accommodations are far from adequate to the needs of the situation.

Another argument for county hospitals is, that many an individual who now hesitates to go far from home to receive proper hospital treatment, would gladly avail himself of the opportunity afforded by such a hospital near at hand. One of the greatest drawbacks to the successful treatment of tuberculosis in sanitariums is the development of homesickness, and inability of the sick to adjust themselves to foreign surroundings. Each such county hospital, properly managed, would prove of great value as an educational factor in the community.

Another phase of this subject, which I must mention at this time, has to do with the examination of registrants. Those of you who have examined registrants, particularly those of the first draft, know with what surprising frequency is found evidence of latent tuberculous foci in one or both apices. Unfortunately, many such cases were passed by the local exemption boards, until now a situation has arisen in our camps, and on our battle fronts, that is appalling. Many of our boys are breaking down under the heavy demands upon their physical resources, and develop a frank pulmonary tuberculosis. We are now receiving repeated warnings from our responsible army heads, to exercise greater care in this matter. We were forewarned, and should have been forearmed in this matter, in view of the experience of other armies, particularly the French army. During the first year of war, over 85,000 of the French army, in field service, were incapacitated by tuberculosis. Practically all of these had small, and apparently latent lesions to begin with.

What is true regarding the classification of these cases, is also true of registrants showing stigmata of mental weakness or disease. All cases of shell shock belong to the category of "mentally inefficient" as do the many frank cases of insanity, which develop in camp or at the front. Within the last few days, General Pershing has issued a warning to the War Department that more care be exercised in weeding out this class of cases. Where doubt exists in the mind

of the local board regarding the mental status of any registrant, one trained in the observation of mental defectives should be consulted, if possible.

We are glad to see our state at last awoken to the advisability of employing better methods of combating typhoid fever. Eight years ago, at Vinton, Iowa, I advocated the general employment of typhoid vaccination, and predicted its adoption along the same lines as smallpox vaccination is employed. Again, about three years ago, I urged this before the Southwestern Iowa Medical Society at Creston, and further contended that an effort should be made to identify and treat all cases of "chronic carriers," and suggested the establishment of district laboratories to carry on this and similar work. I advocated then, and still believe in the necessity of quarantining typhoid fever, though the necessity for this measure will become proportionately less as the employment of prophylactic typhoid vaccination becomes more universal.

I look for the time to come, when more physicians will rely on the teachings of their textbooks, standard medical magazines, and the old Alma Mater, and place less credence in the medical literature (?) of Parke, Davis & Company, H. K. Mulford Company, and other such commercial enterprises.

In the not far distant future, specific therapy will be in the ascendancy, and the physician will be a trained biochemist. We are now able to determine with a fair degree of certainty, what foreign proteid will produce anaphylaxis in an individual, and by judicious treatment, prepare his system against such reactions.

The war has developed many promising surgical and medical methods. Plastic surgery has made marvelous strides, and methods of guarding against surgical shock (and allied conditions), and of restoring individuals moribund from the loss of blood, are now in common practice. The successful prophylactic vaccination against pneumonia is by no means one of the lesser achievements of our physicians working with the army.

Finally, ladies and gentlemen, let us voice our thankfulness that our profession has so nobly arisen to its country's demands. Great have been, and great will be its accomplishments; great have been, and greater will be its sacrifices. Many a brave member of our profession has already given his life in the interest of his country's welfare. Ah! what an almost divine privilege is this, to die for one's country, and what a glorious heritage to hand down to the rising generation.

Those of us who are not permitted to share in the glory of our brethren of the army, can at

least share in some of the sacrifices. We can do our part at home. By earnest, constant, and intelligent effort, let us so improve conditions here, that when our brave boys return, they will realize that their work was not wasted, their sacrifices not in vain.

Let us do our part in the accomplishment of deeds, that more completely exemplify the ideals upon which our government is founded. Let us so live, that all our actions breathe the true spirit of Americanism, that spirit which is the keystone to right and justice; and that spirit which, becoming ever more powerful, will dominate the world's progress, and shape her destiny.

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## EPIDEMIOLOGY OF PNEUMONIA

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Pneumonia has only recently, been recognized as a public health problem. We have realized for a number of years, that it caused more deaths than any other acute infectious disease. According to the census of 1900, more than 10 per cent. of all deaths are due to some type of pneumonia. The epidemic of pneumonia in the various military training camps last winter, and the present epidemic of pneumonia following influenza, have made us realize that this disease is a public health problem of first magnitude. Pneumonia following influenza, has caused the deaths of more than 350,000 people since September 1, 1918. If we base our estimate on the experiences of 1889 to 1896,<sup>1</sup> we may expect an unusual prevalence of pneumonia for the next five or six years. It is imperative that we use intelligence and exert every effort that will assist us in controlling the disease.

The prevalence of pneumonia in the past, has largely been due to our failure to recognize that it is a communicable disease. We formerly supposed, that pneumonia was caused by organisms which were already present in the body—a disease which originated not because the person developing it was infected from without, but because something within the body was changed and microorganisms previously present, but harmless were able to cause a serious infection. It has been quite satisfactorily determined however, that at least two-thirds of the cases of pneumonia are not caused by the organisms which are normally found in the respiratory tract of healthy individuals.

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1. Evans, W. A. and Heckard, M. O., The 1890 Epidemic of Influenza in Chicago and its Influence on Mortality; *American Jour. Public Health*, vol. viii, p. 845.

The morphology and cultural characters of some of these organisms so closely resembled the organisms which do cause pneumonia, that we were led to believe that they were identical. Newer methods of studying organisms which cause pneumonia, have enabled us to differentiate between disease producing organisms and organisms which in normal conditions do not cause pneumonia. It is unwise to state that organisms which cause communicable pneumonia are never found in the respiratory tract are healthy individuals. There are "carriers" of these parasitic organisms but these "carriers" are no more prevalent than are carriers of the diphtheria bacillus or the meningococcus. From an epidemiological point of view we have formerly considered the organisms which cause pneumonia to have relatively little virulence. We have demonstrated the fact many times that by passing an organism through a series of experimental animals that we greatly increase the virulence of the organism for the species of animal used. This phenomenon is just as true in the human species as it is in experimental animals. When some condition permits one person after another to become infected with a given organism the virulence of the organism increases to such an extent that a small proportion of the dose which was required to infect the first person will infect the succeeding ones. The increase in virulence of the organism makes it possible for the disease to become epidemic.

Lobar pneumonia is typically an endemic disease. It does, however, occur in epidemic form. The epidemic in the Panama Canal zone and the epidemics in the mines of South Africa are sufficient proof that it can become epidemic.

Bronchopneumonia due to the streptococcus is typically an epidemic disease. Last winter it occurred first as a complication of measles but later occurred in epidemic form unassociated with measles. It was not confined entirely to military camps, but was more or less prevalent among the civilian population. Bierring<sup>2</sup> reported an epidemic in a family of nine. Eight members of the family had the disease, seven of whom died.

We have a great variety of organisms causing pneumonia. In lobar pneumonia, the organisms are almost invariably pneumococci. In 529 cases of lobar pneumonia studied in Rockefeller's Hospital, the following organisms were isolated.<sup>3</sup>

Bacillus influenzae.....	6
Streptococcus pyogenes.....	7
Streptococcus mucosus.....	1
Staphylococcus aureus.....	3
Cases of mixed infection with combinations of staphylococcus aureus, Friedlander's bacillus, B. influenzae, streptococcus pyogenes, and streptococcus viridans.....	6
Undetermined (most of them occurring before accurate methods for determining the etiology agent had been devised).....	49
Total.....	529

Pneumococci have been classified by Dochez and Gillespie<sup>4</sup> into four types.

This classification is based on the seriological characteristics of the organisms. The incidence of the different types and the mortality resulting from each type is given by these workers, as follows:

Incidence of Type and Mortality		
Type	Incidence	Mortality
1	33 per cent.	25 per cent.
2	31 per cent.	32 per cent.
3	12 per cent.	45 per cent.
4	24 per cent.	16 per cent.

Bronchopneumonia is caused by a number of organisms. It is frequently a mixed infection. Among the organisms frequently found are streptococcus pyogenes, streptococcus mucosus, streptococcus hemolyticus, bacillus mucosus, capsulatus and diplococcus pneumonia. During the epidemic that occurred in the army training camps last winter, in which pneumonia so often followed measles, the hemolytic streptococcus was found much more frequently than any other organism. In the bronchopneumonias which are now following influenza, we find that most of them are due to pneumococci. Although the type 4, pneumococci is probably found more frequently than any of the other types, each type is causing a considerable number of cases. It must be admitted that under certain circumstances, it is possible for the body resistance to be so lowered that the type of pneumococci which are so frequently found in the respiratory tract of healthy individuals, may be capable of causing pneumonia.

It is inadvisable to neglect entirely the part that overfatigue and exposure play in making people more susceptible to pneumonia. If, however, we are going to endeavor to control the disease, we must minimize this if as much as possible and direct our chief energies against the dissemination of infective material.

Diplococcus pneumonia.....	454
Friedlander's bacillus.....	3

2. Bierring, W. L., Lugenbuhl, C. B. and Burt, C. W., Streptococcus Pneumonia and Empyema; J. A. M. A., vol. lxx, p. 702.  
3. Monographs of the Rockefeller Institute for Medical Research No. 7, p. 7.

4. Dochez and Gillespie, A Biological Classification of Pneumococci by Means of Immunity Reactions; J. A. M. A., vol. lxi, p. 727.

The source of infectious bacteria which are capable of producing pneumonia, is man. We have no reason to believe that these organisms can live for any considerable length of time outside the human body. The hosts of these organisms are the patients suffering from the disease, patients recently convalescent from the disease and healthy carriers.

Stillman has shown that pneumococci remain in the respiratory tract of convalescent patients for a variable length of time. In some cases they disappear within seven days from the date of onset of the disease. In others they have remained as long as ninety days after recovery. Usually they have disappeared in three or four weeks. Very few healthy individuals not in contact with patients suffering from virulent types from pneumococci, are carriers of the organisms. Stillman<sup>5</sup> examined the saliva of 297 healthy individuals not in contact with cases of pneumonia, and found virulent pneumococci in only one case. This person was a carrier of type 1 pneumococci. In examining 160 individuals in contact with type 1 pneumonias he found that twenty-one or 13.1 per cent. were carriers of type 1 pneumococci. Of 149 persons in contact with patients suffering from lobar pneumonia due to type 2 pneumococci he found that eighteen or 12.1 per cent. were carriers of this organism. We see therefore that carriers are "contact carriers" are in most cases. These organisms are given off from the persons harboring them, in the secretions of the respiratory tract.

Sputum, and droplets, given off during coughing, sneezing, etc., contain the infectious material. This material is transferred from one person to another principally by direct contact, by indirect contact, and by droplet infection. It is possible that dust plays some part in the transfer of infective material. Stillman studied the types of pneumococci recovered from dust in rooms occupied by pneumonia patients and in rooms not occupied by pneumonia patients, results of his investigation are found in the following tables.

Types of Pneumococcus Recovered from Dust of Room in Which Lobar Pneumonia had not Occurred

Type of Pneumococcus	Incidence	Per Cent.
1	1	5.5
2	0	0
2a	0	0
2b	4	22
2x	3	16.6
3	2	44.4

5. E. G. Stillman, A Contribution to the Epidemiology of Lobar Pneumonia; J. Exp. Med., vol. xxiv, p. 651.

Types of Pneumococcus Recovered from Dust of Rooms in Which Cases of Lobar Pneumonia Due to Type 1 or Type 2 Pneumococcus had Occurred

Type of Pneumococcus	Incidence	Per Cent.
1	25	33.8
2	23	31.1
2a	0	0
2b	2	2.7
2x	2	2.7
3	2	2.7
4	20	27.0

The manner in which the organism gain entrance to the body has been studied carefully. There is reason to believe that the only portal of entry is through the respiratory tract.

It is impossible for the physician to tell by clinical means the nature of the organisms which is causing the pneumonia. If the pneumonia is of the lobar type, he can be reasonably certain that it is due to some type of pneumococci. If it is of the broncho type, it may be due to any one of a great number of organisms. He can determine the nature of the organism only by laboratory examination. The mouse inoculation method of Blake<sup>6</sup> is the most reliable. The cultural method of Avery<sup>7</sup> is the best substitute for mouse inoculation. In order to treat the patient more intelligently and in order to use more intelligent preventive measures, it is advisable that the infective organism be identified.

Although the treatment of pneumonia is not a part of the epidemiological problem, it is nevertheless interesting to note the decrease of the mortality when our therapy is directed against the organisms which is identified with the case. Shattuck and Lawrence<sup>8</sup> have analyzed 3291 cases of lobar pneumonia treated in the Massachusetts General Hospital from 1889 to 1917. Since 1881 there has been no significant change in the death rate. In fact the mortality rate for pneumonia in the entire series, has undergone no important change. The general medical treatment has done nothing to reduce the mortality of pneumonia during the past ninety-five years. They conclude that the only hope is the use of some specific treatment. Their results from the serum treatments of type 1 pneumonias is the only encouraging feature of their study. The efficiency of treating pneumonia patients suffering from type 1 pneumococci with type 1 anti-pneumococcus serum is so well established, that it

6. Blake, F. G., Methods for the Determination of Pneumococcus Types; J. Exp. Med., vol. xxvi, p. 67.  
7. Avery, O. T., Determination of Types of Pneumococcus in Lobar Pneumonia; J. A. M. A., vol. lxx, p. 17.  
8. Shattuck, F. C. and Lawrence, C. H., Acute Lobar Pneumonia; Boston Med. and Surg. Jour., vol. clxxviii, p. 245.

is well worth while to attempt to identify the type of organism in every case in order that we may treat those cases with serum that are due to the type 1 organism.

Wayson and McCoy<sup>9</sup> have studied the protective value of antipneumococcus serum from various laboratories. They found that some of the commercial laboratories are supplying a very satisfactory serum.

Rosenow<sup>10</sup> has done some experimental work in the treatment of pneumonia patients with a partially autolyzed suspension of pneumococci. This work is still in the experimental stage and no conclusion can be drawn at present as to the efficiency of this treatment. Miller and others have for some time been interested in the non-specific protein therapy, of pneumonia as well as other infectious diseases. Here again we are still on experimental ground.

So far as the control of the spread of the disease is concerned, however, we must direct our greatest attention toward the prevention of the dissemination of infective material. The patients should be reported to the health authorities promptly. All cases should be effectively isolated. All secretions from the respiratory tract must be carefully disinfected. While it is relatively easy to collect all sputum, it is difficult to collect the droplets which are given off in the acts of sneezing, coughing, or loud talking. This can be most effectively accomplished by having the patient wear a mask which completely covers the mouth and nose. This mask should be constructed of several layers of gauze. It should be replaced with a clean mask at frequent intervals. Soiled masks should be carefully disinfected either by dipping them in boiling water for a few minutes or by burning them. In patients so seriously ill that the masks would be a serious inconvenience to their breathing, it is inadvisable to use the mask. In this case the patient's bed should be screened, or at least separated from the beds of other patients by means of hospital screens or sheets hung about the bed. The separating the beds of patients as described by Hamburger and Mayers<sup>11</sup> and was found to have good effect at Camp Zachary Taylor, Kentucky. All nurses or other attendants of patients, or any one who comes in contact with patients should wear a mask for their own protection, and also to diminish the possibility of their becoming carriers.

They should also avoid touching their face with hands which they believe to be contaminated with infective material.

It might under certain circumstances be advisable to endeavor to detect carriers. It is advisable to have a person who is suspected of being a carrier, use antiseptic gargles and sprays. Kolmer and Steinfield<sup>12</sup> have suggested that pneumonia carriers use as a mouth wash a 1 to 10,000 solution of ethylhydrocupéine hydrochloride or quinine bisulphate in a one to ten liquor thymolis. From their laboratory experience with these substances it seems that this treatment would be effective in the treatment of pneumonia carriers.

We have had so little experience in trying to treat pneumonia carriers that any treatment is likely to be empirical for a considerable period of time.

Vaccination for pneumonia has been used to only a limited extent in this country. The results offer hope and at the present time indicate that it will be effective against lobar pneumonia due to types 1, 2 or 3. For several years Lister in South Africa has used pneumococcus vaccine and has to a considerable extent controlled the epidemic of lobar pneumonia among the mine workers of this region. Last winter Cecil and Austin<sup>13</sup> vaccinated 12,000 of our soldiers at Camp Upton with pneumococcus vaccine representing types 1, 2 and 3. Until the soldiers left for France which was several months following the inoculation not a case of pneumonia due to the types of organisms used in the vaccine developed. Among these men who were in this camp and who were not inoculated, there were considerable number of cases. Vaccination therefore offers some hope as a protective measure against pneumonia. There is no experimental data to indicate that we can expect to immunize patients against type 4 organisms whereas, we can expect to get immunity response from types 1, 2 and 3.

Avoidance of other respiratory tract infections will assist in the control of pneumonia.

The people should be warned of the danger of lowered resistance and should be taught the benefits of following the fundamental principles of personal hygiene.

Controlling pneumonia is a big problem. It is not however, a hopeless problem. Any measure which will be of any benefit is well worth trying. The fewer the number of people that have the disease the less will be the virulence of the organism and the less the mortality.

9. Wayson, N. E. and McCoy, W. G., The Potency of Antipneumococcus Serum; J. A. M. A., vol. lxx, p. 1747.

10. Rosenow, E. C., Partially Autolyzed Pneumococci in the Treatment of Lobar Pneumonia; J. A. M. A., vol. lxx, p. 759.

11. Hamburger, W. W. and Mayers, F. H., Pneumonia and Empyema at Camp Zachary Taylor, Ky.; J. A. M. A., vol. lxx, p. 915.

12. Kolmer, A. C. and Steinfield, Prophylaxis of Lobar Pneumonia, Jour. Inf. Dis. vol. xxii, p. 220.

13. Cecil, R. L., and Austin, J. H., Results of Prophylactic Inoculation against Pneumococcus in 12,519 Men; Jour. Exp. Med., vol. xxviii, p. 19.

## SOME RESULTS FROM THE EXPERIMENTAL STUDY OF INTESTINAL OBSTRUCTION\*

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Speaking of intestinal obstruction John William Draper of New York, states that, "It is axiomatic, however, that no treatment, either medical or surgical, can be of real value unless it is based on a greater knowledge than we at present possess. Researches, therefore, into the physiologic pathology of the alimentary canal are evidently of the utmost importance."

The above statement, coming from one of the leaders in the work on intestinal obstruction, is sufficient justification for presenting to you this paper which is based purely upon the results of an experimental study, extending over the last few years.

Let me state the problem which has attracted the attention of the experimental worker in this way:

Clinically it is noted that—

1. Any obstruction of the gut leads to adverse symptoms and complete obstruction to death.
2. In obstruction of the upper end of small intestines there is a more rapid onset of symptoms and greater fatality than in cases of obstruction in lower part of small intestine and still lesser effect when in large intestine than when in small.
3. Bacteremia rarely, if ever, is found.
4. The symptoms point to a rapidly developing severe toxemia.

All of the above facts have been repeatedly shown in experimental work by Rogers, McClean, Draper, Whipple, Murphy and Brooke, Hartwell and Hoguet, et al. Experimental work has also shown that while there are toxic substances present in the lumen of normal intestine, the content of obstructed intestines is of far greater toxicity and when injected intravenously into normal dogs it produces all of the symptoms of an acute obstruction. It is natural, therefore, that the attention of the experimental worker in this field should be directed first to the origin and nature of the supposed toxic substance and second to the reason for the more rapid onset and fatal effect of occlusion of the upper as compared with the lower portion of intestinal tract, and third to possible production of an immunity to toxine.

It is our purpose in this paper to present the results of experimental obstruction in a large number of animals—over 300—and show how, in our opinion, they tend to prove or disprove the

various theories for the origin of the toxic substance which causes the fatal effects of obstruction. For a detail of the experiments performed we must refer you to papers already published or to be published soon.

A number of possible sources for the toxic substance has been suggested, of which the following only are of such importance as to need consideration:

1. Decomposition of food material in lumen.
2. The normal secretion of the digestive glands may become toxic when acted upon by bacteria.
3. The mucus membrane normally discharges toxic excrete into lumen and this may be absorbed in obstruction.
4. The mucus membrane may secrete into lumen a special substance which is toxic, the degree of toxicity decreasing from duodenum down, but normally the toxic substance is neutralized by secretions from mucus membrane farther down the tract. Obstruction prevents the neutralization and the toxic substance is absorbed. (Draper theory.)
5. Tissue cells of intestine, when their normal activity is interfered with by obstruction become aberrant in action and so produce toxic substances instead of the normal non-toxic ones. (Whipple, Stone, Bernheim.)
6. The mucus membrane may normally secrete specific and vital internal secretions, Hormones, which are in some way disturbed by obstruction (Whipple).
7. Simple autolysis or autolysis with bacterial decomposition of mucosa cells, with the mechanical injury or local anemia resulting from the obstruction as an important factor in lowering the vitality of mucus membrane, thus permitting of the autolysis and absorption of abnormal substances.

Our experimental work gives us a basis upon which we can judge the probability of any and all of the above suggested origins of the toxic substances.

*Experimental Work as to Origin of Toxic Substance*—A number of methods may be used for production of experimental obstruction but the most satisfactory one has been the so-called "closed loop" method. A portion of the intestine is resected, without interference with blood supply, closed at both ends and dropped back into abdomen. The continuity of the intestinal tract is established by end to end anastomosis. This method gives rise to all the symptoms and effects of acute obstruction and corresponding to high or low obstruction according to the part from which the resected closed loop was taken. The method

\*Read before the Sixty-seventh Annual Session, Iowa State Medical Society, Fort Dodge, May 9, 10, 11, 1918.

also permits of a better control of the conditions in obstructed area than can be obtained by the ligation method.

*Results from Simple Closed Loops*—Closed isolated intestinal loops from which all food has been carefully washed out, produce symptoms of acute obstruction with death. Animals with closed loops from duodenum live on an average three days, from the jejunum seven days, from ileum fourteen days, and from colon three months or longer. One dog in about one hundred of those operated on will survive any of the above operations. The longer the loop of small intestine taken the slower the development of symptoms and death. The loops become distended, black and gangrenous, often rupture and discharge a foul smelling brown fluid into abdominal cavity, peritonitis resulting. The fluid when injected into normal animals, produces all symptoms of acute obstruction, but the toxicity is of great variance, 10 cc. of some being lethal, while of others it takes as much as 15 cc.

From experiments of this type we draw the following conclusions as to origin of toxic substance.

1. That food, while it may play a part in the production, is not an essential factor as food free loops are rapidly fatal.

2. The toxic substance is not necessarily or solely derived from any or all of the digestive secretions with the possible exception of the succus entericus, which alone will be present in loops obtained from below the pancreatic and biliary openings. Davis & Stone have shown that normal intestinal secretion is non-toxic when fresh, but when incubated for eighteen hours, becomes toxic and will then produce symptoms similar to closed loops. It is possible, therefore, that in clinical cases the bacterial decomposition of digestive secretions may also furnish some of the toxine.

*Results from Modification of Simple Closed Loop*—Among the more instructive modifications of the simple closed loop is the "open loop" taken from any part of small intestines. When dropped back into the abdomen it drains freely into the peritoneal cavity, but later may become closed by adhesions or by subsequent surgical operation. Before placing the open loop back into abdomen, the food is washed out and the lumen may be sterilized by washing with large volume of ether. However non-sterilized open loops may also be used and these, after draining freely into peritoneum for a while become more completely sterile than those washed with ether, and thus have the advantage of not having had anything done to them which will in any way affect

the normal cell action. With such open loops, sterilized or non-sterilized about 50.70 of dogs will live. Some may develop peritonitis, but none developing symptoms of an acute obstruction as long as loop remains open, and when closed by adhesions or by surgical operation only those dogs in which the loop was non-sterile does the toxemia of obstruction develop.

A number of such experiments have been performed and we believe warrant us in excluding several of the supposed origins of the toxins. Thus the normal excretions of the mucus membrane will be drained into the abdomen and absorbed without effect upon animals even from very long loops and although they may be toxic, the animals are able to take care of them after absorption without any harmful effect. The same is true for any special toxic excretion which normally is neutralized before absorption by secretions lower down, for in experiments sighted the secretions were emptied into peritoneal cavity and have had no chance of being neutralized before absorption. Nor do we find it necessary to consider any aberrant activity of cells which, normally secreting non-toxic substance, when placed under conditions of obstruction become toxic producing cells. In sterile loops which have become closed we have all the mechanical conditions of simple closed loops but no symptoms of obstruction occur. The blood supply to such loops may be completely shut off and the loop undergoes complete autolysis without effect upon animal, which also showing the necessity of bacterial decomposition. In long loops with a large secreting surface a large amount and a more rapid production of aberrant secretion would naturally be expected than in short loops—the short loop, however, is the more rapidly fatal.

We have also failed to find any justification for assigning to the mucus membrane of the intestine a vital internal secreting function, such as in parathyroid, adrenals, etc. Animals survive resecting of any part of the small intestine, including the duodenum, which is considered the most vital portion, and show no such symptoms as are characteristic of obstruction or of loss of vital internal secretions. The complete removal of the duodenum was accomplished this past year, and the animal lived for over three months, and died from inanitions. The surgical trauma in such an operation is terrific and in our opinion the high percentage of rapid fatality following operations on duodenum is due to shock and not loss of internal secretion. In the animal which lived for three months every effort was used to overcome the digestive disturbance which naturally followed when the intestinal tract was de-

prived of pancreatic juice, bile and duodenal juice, but without success, and the animal died of starvation.

Of the theories for origin of the toxic substance we have thus far considered all but that of simple autolysis or autolysis with bacterial decomposition. Simple autolysis of mucus and intestinal cells is not sufficient as is shown by the fact that sterile closed loops may undergo complete autolysis without any harmful effects. Autolysis with bacterial decomposition is however effective. Hartwell, Hoguet and Beckman say the toxemia is proportional to extent of neurosis. While the toxine may come from bacterial decomposition of any protein, such as in food or in digestive secretions, in the absence of injury to mucus membrane, we do not find these absorbed sufficiently to produce the typical symptoms. A most important factor in causing injury to the cells, lowering their resistance and their protective functions, and finally to their autolysis is mechanical distention both from pressure upon the cells and from the anemia induced, as is seen in closed loops or in clinical cases by infraction as in volvulus and strangulation. The development of effective tension is relatively much more rapid in short loops than in long ones where the pressure is distributed over a large area, and thus is in keeping with the point we are emphasizing. Likewise the fact that simple obstruction is least effective in those parts which are naturally subject to more or less distention as in lower ileum and colon, whereas the duodenum because of its anatomical relationship is prevented from dilatation, the effect is most severe and rapid. We feel also that the arrangement of blood-vessels to duodenum, lying as they do parallel to sides, will be much more quickly occluded, and the injury much greater than in those portions of small intestine where the arcade form of blood supply is present. The mechanical factor we therefore believe to be not only a most important one in causing injury to the cell from which by autolysis and bacterial decomposition the bulk of the toxic substance has its origin but it also helps to explain the variation in effect of obstruction in different parts of the intestinal tract.

As to the nature of the toxine the evidence is not definite at present time. Experiments conducted by one of us tend to show that they are not protein, and are not such as will cause the establishment of an immunity or even an increased resistance in an animal to subsequent intravenous injection of loop content. There is some evidence but not yet complete, that they are similar if not identical to amines and that the liver is an important factor in their destruc-

tion—the portal vein apparently containing them in large quantities than are found in the blood of vena cava.

The treatment indicated from our study of acute obstruction is first surgical to relieve tension with routine treatment of toxemia in general. Frequent use of saline infusion and hypodermoclysis is of considerable value in hastening the elimination of the toxins from the systemic system.

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 J. A. Hartwell, J. P. Hoguet and Burkman, *Arch. Int. Med.* vol. xiii, p. 701.

#### Discussion

**Dr. Oliver J. Fay, Des Moines**—The remarks of the chairman as to a surgeon not having a good physiological foundation puts me in a rather embarrassing position. Physiology and surgery work together very well in teaching, but in practice this combination does not work out quite so well. However, it seems to me that Dr. McClintock has brought out here the most sensible reason as to why an intestinal obstruction is almost invariably fatal, namely: That it is a matter of bacterial decomposition following necrosis of the mucous membrane of the intestinal wall, resulting in toxemia. Another point that has been well demonstrated from the surgical side is that infection of the upper abdominal tract is much more fatal than that of the lower abdominal tract, applying that principle which every man doing much abdominal surgery has in many instances had occasion to note to his sorrow. Then too, from the experimental work which the Doctor has produced here so clearly, it seems to me that his theory fits the practical side of the question, which to me is extremely interesting in all experimental work of this kind. Everybody knows that intestinal obstruction is one of the most fatal conditions with which we come in contact, and I think we are all familiar again with the practical side—that obstruction in the upper abdominal tract is much more rapidly fatal than in the lower. I think that is proven from the clinical point of view as well as from the experimental point of view. I want to compliment the essayist on being able to produce in the laboratory something that really agrees with the practical application of the principles of surgery.

**Lieut. W. Frazer, Algona**—There is one point I want to mention in this connection, and that is the fatality of infections in the upper abdominal cavity. It seems to me in keeping with general experience that infectious material is absorbed in the upper abdominal cavity more readily and more completely than in the lower. That may be an evolutionary de-

velopment, and it is due to the fact that the peritoneal surface has more openings, or stomata, which absorb the material into the peritoneum about the upper surface of the peritoneal cavity than it has in the lower portions. Whether that is what the condition is that Dr. McClintock has described—whether due to an infectious material loose in the peritoneal cavity, or just simply within the intestine itself,—I did not understand. But that is the fact—there are more of these stomata in the upper abdominal peritoneal surface than in the lower.

**Dr. McClintock**—In closing the discussion I will say in the first place that in the upper intestinal tract there are fewer bacteria than in the lower intestinal tract, and it does not make any difference whether our open loop is taken from the upper or from the lower end of the intestinal tract. We must remember that the mucosa in the upper end of the tract is not absorptive primarily, but secretory, while the lower portion of the tract is absorptive. Yet in obstruction of the lower part death takes place in seven to fourteen days and in the upper it takes place more rapidly. In explanation of the reason why obstruction of the upper intestinal tract is more serious than in the lower, we remember that the duodenum, which is bound down by peritoneal attachments, has little chance for distention. The blood supply, also, is such in the duodenum that it is more easily cut off by a small degree of distention. In the colon we naturally get a great amount of physiological distention without serious effects. This mechanical factor of distention is, we believe, a most important factor in the relative severity of obstruction in upper and lower intestine.

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## DIAGNOSIS AND TREATMENT OF PEPTIC ULCER\*

J. T. STRAWN, M.D., Des Moines

Gastric and duodenal ulcer, although an old subject, still retains its active interest in medical literature. However, an exhaustive discussion of the subject is not within the limits of this paper, and my remarks will be limited to only certain phases of the treatment and diagnosis.

The scientific treatment of a disease usually rests upon a comprehensive knowledge of its etiology. Unfortunately this knowledge still remains somewhat wanting in chronic gastric and duodenal ulcers. Recently a great deal of experimental work has been done on peptic ulcer and as a result it seems definitely established that there are many methods by which acute gastric and duodenal ulcer can be produced in animals.

It has also been fairly well established both experimentally and clinically that there is a decided

tendency for these ulcers to heal, treated or untreated. However, the mechanism by which the acute ulcer becomes chronic or by which the chronic ulcer arises is not quite clear. It may, according to the microbic theory, be that bacteria in the walls of the ulcer retard its healing. Possibly other trophic disturbances may play a part. There are certain lines of evidence however which point to the digestive effect of the gastric juice as playing an important part. The fact that under clinical and experimental conditions the ulcer practically never develops in any portion of the alimentary tract, save where the undiluted and unneutralized gastric secretions come in contact with the mucosa, is strongly suggestive that the acid gastric juice must be one of the important factors. In certain animal experimentation it has been found that those having gastric juice neutralized were less likely to develop an ulcer. (The effect of the gastric secretions upon foreign viscera—duodenum and spleen—ingrafted into the stomach depends upon the degree or blood supply protecting them from its corrosion.) Clinically, gastric and duodenal ulcer has been found to decrease in frequency as the acid passes from the lower limit of normal to achlorhydria. Emptying the stomach of acid secretions affords relief. Peptic ulcer not infrequently develops in the duodenum near a gastro-enterostomy opening. Pyrosis is one of the common symptoms in ulcer and relief is almost invariable associated with the accurate use of neutralization by food and alkalies.

If the digestive effects of the gastric juice does play a part as such evidence would indicate, then its constant neutralization is indicated, and until such evidence can be unquestionably overthrown the constant neutralization (not excessive neutralization) of the gastric juice should be allowed to take one of the important places in the treatment of a gastric or duodenal ulcer. Furthermore, if neutralization is of any value there is no reason why it should be only partially carried out. It should be managed accurately and carried out in full detail.

There are two methods of eliminating the gastric secretions. First, is to prevent its formation to a greater or less extent by taking away all food and drink, thereby giving the stomach complete physiological rest. The second, is to keep the acidity neutralized by the introduction of fresh neutralizing substances into the stomach during the day and aspirating any excessive continued secretion should it occur at night. The first method, that is starvation, because of the disturbances of the general nutrition if continued for a period of more than a few days is decidedly

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\*Read before the Sixty-seventh Annual Session, Iowa State Medical Society, Fort Dodge, May 9, 10, 11, 1918.

impracticable, and in my experience has not been of an advantage even in the beginning of the treatment in the majority of cases.

In neutralizing the acidity, it is important that the neutralizing substance, whether it be food or powders, be given in small amounts at frequent intervals. By introducing small amounts only, the stomach is allowed to remain contracted, a factor which is in itself favorable to healing. It prevents the concentration of the gastric secretions at the end of digestion and by giving the food at frequent intervals in small amounts we are making the best possible use of it as a diluent and neutralizer of the gastric juice.

Concerning the neutralizing agents, food alone in the majority of cases will fail to maintain complete neutralization. Therefore, additional agents are indicated. Of these, calcined magnesia, soda bicarbonate, bismuth subcarbonate, or calcium carbonate, while not ideal, fulfill pretty well the requirements. By making up two separate powders, the one having for its principle part magnesia to which soda bicarbonate may be added, the other having for its principle part bismuth subcarbonate or calcium carbonate to which soda may also be added, the patient has the possibility of alternating them in such a way that he may keep control of the bowel movements.

In addition to neutralization, there are other essential factors as well as minor details requiring careful attention in the management of a case of peptic ulcer. Two of the most prominent indications are, first, to secure the greatest possible rest for the stomach, both mechanical and physiological, and second, to properly feed the patient.

The necessity for mechanical rest to any ulcerating surface is well known. Mechanical activity as well as physiological activity can be reduced to the minimum only by placing the patient at absolute rest in bed. The most prominent clinicians require their patients to remain in bed for at least twenty-one days. Relative rest to the stomach, throughout the entire course of management may be given by selecting a food of high caloric value, of liquid form or finely divided state, a food easily emptied from the stomach and requiring the least possible effort on the part of gastric digestion, yet a fairly complete food to build up the nutrition. The quantity of food given in the beginning should be very small and gradually increased as the ulcer shows tendency to heal, until in the course of two or three weeks the patient no longer loses weight, but begins to show a slow and gradual gain. However, at no time should the stomach be allowed to become over-burdened with the quantity of food. If this should occur the feeding of smaller quantities

should be resumed then increased more gradually.

Of the foods which may be used, milk and cream in equal parts probably head the list. The milk should be fully one-half cream for two reasons. First, cream is of a high caloric value and represents a highly concentrated liquid food, second, it dilutes the milk and aids in the formation of a less dense curd. Eggs, raw, soft boiled or poached, gruels and cooked cereals as cream of wheat, oatmeal, rice, farina, etc., custards, gelatines, creamed soups, potato puree, puree of peas and other vegetable puree, and similar articles of food should be allowed. Mashed potatoes, toast, crackers, and other such foods, may be added later. Finely divided lean meat may be allowed after the observation period has passed.

While each case should be treated as an individual, the following is an outline of the practical management for the average chronic ulcer case, and it is in its essentials the treatment of B. W. Sippy:

1. Absolute rest in bed. (Twenty-one days.)
2. Milk and cream in equal parts. Ounces one of the mixture every hour from 7:00 a. m. to 7:00 p. m.
3. RX.—Calcined magnesia gr. x. Soda bicarbonate gr. x. At 7:30 a. m., 9:30, 11:30, 1:30, 3:30, 5:30, 7:30, 9:30 p. m. daily.
4. RX.—Bismuth subcarbonate gr. x. Soda bicarbonate gr. xxx. At 8:30 a. m., 10:30, 12:30, 2:30, 4:30, 6:30, 8:30 p. m.
5. Aspirate stomach at 4:30, just before powder is given.
6. Add Soda bicarbonate, gr. v to x, to each powder if free Ccl is present in aspirated contents.
7. Repeat above aspiration occasionally and add the same amount of soda if needed.
8. Increase milk and cream, ounces i, each day until dose is ounces iii.
9. Increase nutrition further by adding one of the following foods each day, or second day, at the following hours: Eggs (soft boiled or poached), custards, vegetable purees or cereals as cream of wheat, farina, or well cooked rice, (ounces iii) 1:00 p. m., 7:00 a. m., 5:00 p. m., 11:00 a. m., 3:00 p. m., 9:00 a. m., 7:00 p. m.
10. Continue hourly feedings ten to twelve weeks.
11. Feed every two hours (double quantity). Powder every two hours, midway between two feedings (double quantity if necessary).
12. At the end of four or five months. Give food at three meals per day, also glass of milk and cream at 10:00 a. m. and 3:30 p. m. Powders one and one-half hours after each meal, three times a day.

By such a method, I feel quite sure that practically all uncomplicated cases can get well. It is almost astonishing how nicely they respond and there is no more satisfactory type of case to treat in medicine. I find that the cleaner the history is

of ulcer, the more typical the x-ray findings, and the cleaner cut the diagnosis of uncomplicated ulcer, the more beautiful is the result. (I have seen several cases operated upon after a few weeks of such a management, the case not having done well, but the laparotomy in these cases demonstrated no ulcer or a complication. I remember one case in particular, where there were four interested physicians. At the laparotomy a small adhesion extending from the duodenum was found. Two physicians insisted it covered the sight of an ulcer, the other two were of the opposite opinion. Incision was made into the stomach and no evidence of an ulcer could be found, but on the other hand a perfectly normal mucosa, the area under the adhesion being well exposed.) Too frequently the medical man becomes discouraged in the treatment when the supposed ulcer fails to respond, and in actuality, no ulcer exists. In still other cases, discouragement is due to unrecognized complications, adhesions, carcinomatous degeneration, high grade stenosis, etc., as well as unrecognized associated diseases, tuberculosis, syphilis, gall-gladder, chronic appendicitis, colitis, neurasthenia, etc. In these it is the diagnosis and not the management that is at fault. If the supposed simple case fails to respond a reexamination is indicated and it will usually be found that a previously unrecognized disease or complication is at fault.

The complications of gastric and duodenal ulcer are in brief, stenosis, or obstruction, perforation, carcinomatous degeneration, adhesions, hour glass deformity, continued secretion, which usually represents the beginning of obstruction, hemorrhage, and perigastric abscess. Of these, perforation, perigastric abscess, hour glass deformity and adhesions, causing unquestionable interference with the gastric motility, are undisputedly surgical conditions, as also is evidence of carcinomatous degeneration. To this class should be added the larger ulcer which resist treatment as shown by x-ray and continued positive Weber stool test. This class of ulcer, according to MacCarty, frequently show microscopic evidence of carcinomatous change. Such ulcers, in my opinion, should be resected. In the cases of obstruction, the most legitimate controversy between medicine and surgery exists. Of these cases, those due to spasm and inflammatory swelling subside on the above management, if in addition the stomach be emptied of its contents at bedtime and also of the continued secretion accumulating in the night. The case then goes on to recovery as an uncomplicated case. Dr. Sippy has proven that cellular infiltration disappears and by continuing the strict management

over a long period of time the obstruction in nearly all cases disappears. On the other hand, surgeons feel that these of all ulcers are the most ideal for gastro-enterostomy. In this particular class, after ruling out spasm and acute inflammatory swelling, I usually sum up the proposition for the patient and let them choose. If they prefer the operation I do not object, or on the other hand, I am glad to give them the opportunity of a non-operative plan.

However, in the treatment of ulcer cases, medical or surgical, it should be emphasized to the patient that a gastric or duodenal ulcer is prone to recur, whether operated or not, and that his management is also a school to teach him to take care of it. If at any time evidence of the old symptoms should recur he should drop to the frequent feedings and neutralization immediately, however, without necessarily going to bed, or even giving up work, and may increase at a more rapid rate until in a few days he is again on the usual diet. The symptoms alone are not always a safe guide. The stools should occasionally be analyzed for blood, and the stomach occasionally observed under the x-ray, as suggested by Hamberger.

With a clear understanding of the individual case, there should be very little doubt of the method to pursue. However, to obtain this clear understanding a great deal of individual study and diagnostic work is often necessary. (Not only is it essential by way of direct or differential diagnosis to prove that the lesion actually exists, but to find its location, size, possible complications, and other associated diseases. A failure to recognize these is to treat and advise your patient from the dark, and as pointed out above is responsible for the greater number of discouragements by the medical plan.)

In the diagnosis the anamnesis is a fundamental part. Time should not be spared in working out its details. The story told by the patient is the foundation upon which we build our lines of investigation. It is the key to the differentiation, the suggestor of complication, and a guide through the different lines of analysis.

The physical findings, tube findings and ordinary laboratory analysis, etc., all have their place. They are important and should not be discarded but carefully interwoven into the diagnostic evidence. They are always of help and sometimes assume an important place in the available findings. However, from the special laboratory side, I find the x-ray almost indispensable and use it as a routine practice in the investigation of these cases. Duodenal deformity with but few exceptions, (Carman) and in the stomach the

niche and accessory pocket, are practically pathognomic of ulcer.

In the stomach the spastic manifestations, as the incisura, spasmodic hour glass stomach, diffuse gastro-spasm, and the retention of the six hour meal, alterations of peristalsis, lessened motility of the stomach and localized tenderness, classified by Carman as the secondary or corroborative signs of gastric ulcer, taken with the history and evidence gained from other analytical means, build up fairly characteristic findings upon which the diagnosis of a gastric ulcer can depend. In the duodenum the indirect signs classified by Carman as alterations of gastric tone, alterations of gastric peristalsis, alterations of gastric motility, gastro-spasm and tenderness localized in the duodenum, taken with the history and evidence gained from other analytical means, build up fairly characteristic findings upon which the diagnosis of duodenal ulcer can depend. Hypertonus, together with hyperperistalsis and hypermotility, constitutes a suggestive triad of hypers, pointing toward duodenal ulcer. Carman in his recent book says that a residue in the stomach with an unbroken contour, that is to say, without any roentgen evidence of gastric ulcer or cancer should first of all suggest duodenal obstruction, the most common cause of which is duodenal ulcer. He adds "if in addition to the gastric retention, there is typical gastric hyperperistalsis, the presence of a duodenal ulcer is almost certain." Carman in dealing with these indirect signs states that "the anamnesis and clinical data in most instances are more or less direct and eliminative, so that the correlation of all findings is advisable as a rule. No diagnosis can be too strongly fortified, and any gross discordance between the findings from all sources should make one cautious in giving an opinion." Personally, I resent the term "x-ray diagnosis." It tends to a misunderstanding. We should observe closely the x-ray findings and give due credit to their significance but a diagnosis should have back of it a careful weighing of the evidence from every available source. It should represent a careful correlation of the history, physical findings, x-ray and ordinary laboratory work. For the most accurate correlation of these factors it is essential that the clinician who is dealing with this type of work be thoroughly familiar with fluoroscopy and plate interpretation, or that the roentgenologist be well trained in gastro-enterology and furnished with the clinical data previous to his investigation. The more familiar the physician is with the history and other clinical findings, the better will be his guide in the x-ray investigation and the more accurate will he be in weighing them all. Even

after a most painstaking analysis one will find a few cases of uncertainty. Some of these can quite easily be cleared up by putting the patient on a diet of coarse foods for a few days and then reexamine. In others, especially those suspicious of complications or associated disease, a few days study (two weeks or longer) on the ulcer management may clear up the doubt.

#### Discussion

**Dr. W. R. Brock, Sheldon**—I do not know that I can add anything of special interest to the discussion of this paper, for it is very good and complete in all respects. We have two classes of causes which produce ulcer of the stomach: Predisposing causes and direct causes. The predisposing causes of ulcer of the stomach are anemia of the stomach walls and local lowered resistance of the stomach tissue. The direct causes are infections, and chemical and mechanical irritations. The theory of Rosenow in regard to streptococci being carried from distant tissues, such as those of the tonsils, nose, etc., to the walls of the stomach, resulting in infection and ulcer, is, I believe, quite generally accepted by the medical profession. However, as has been suggested by the essayist, Dr. William Mayo has expressed the belief that ulcer of the stomach is commonly produced by long periods of acidity and intense hyperchlorhydria. This seems to be a reasonable conclusion, for when we remind ourselves of the fact that the only places in the entire alimentary canal where ulcers occur are those where we have this intense and chronic acidity or hyperchlorhydria, we can readily conceive that this is probably the factor that is responsible for these ulcers. In the lower portion of the duodenum we have two alkaline streams pouring into the alimentary canal at about the same point, the stream of bile and the stream of pancreatic juice. In addition we have located all the way from the duodenum to the head of the colon the glands of Lieberkuhn, which are constantly secreting a considerable amount of alkaline fluid. Therefore we conclude that in the neutralized portions of the canal we have no ulcer, but that in those places where the reaction is intensely acid ulcer may frequently be found. In regard to diagnosis of peptic ulcer, the ball and string of Einhorn has fallen into disrepute. In passing along a country road the other day I saw a man marching up and down his premises like a proud man of science, holding in his hands a little twig by means of which he was trying to find just where to dig a well. And the ball and string takes the same place in trying to determine the presence and location of an ulcer of the stomach. Dr. Moynihan tells us that the diagnosis of ulcer of the stomach may be made by correspondence. This has a sort of a satisfying ring about it and perhaps will please those gentlemen who hold down the chairs in the schools of correspondence. The only objection to it is that it is not true, any more than it is true in other cases where we need to use all of our resources in coming to a conclusion in making our diagnosis. But I think

what Dr. Moynihan had in mind was the importance of the history in these cases. I do not know that it is any more important to have the history in these cases than in many other cases where it is necessary to make a diagnosis. We should take into consideration the carefully prepared history of our cases, then make a diagnosis by exclusion. We should exclude gall-stones, cholecystitis, appendicitis, diseases of the kidney, perhaps curvature of the spine, and especially hyperchlorhydria. We must bear in mind always that hyperchlorhydria resulting from stomach neurosis must be thought of when we come to a conclusion in these cases.

**Dr. A. E. Echternacht, Mason City**—Of course, the x-ray has nothing to do with the treatment of peptic ulcer, but it has something to do with diagnosis of the condition. I do not know that I have much to add. The paper was a very able one from the diagnostic standpoint and even from the x-ray standpoint. I might emphasize one point, and that is in regard to the location of the ulcer. I would fully agree with the essayist that it is very essential that all methods at our command be used in order to make a diagnosis. The x-ray alone is not enough, the clinical findings and the laboratory findings by themselves are not enough, the history is not enough; but everything all taken together must finally be considered in order to arrive at a fairly safe diagnosis. In the case of a typical duodenal ulcer the history is practically all that is necessary, and practically so of the typical gastric ulcer. But in the transitory cases of peptic ulcer you have to use all the means possible. In ulcer of the duodenum the only direct x-ray sign is irregularity of the bulb. While the bulb is in a very small portion of the duodenum, fortunately 90 per cent. of all duodenal ulcers are found in the first few inches, and the first few inches is the only part that is very readily observed with the x-ray. The rest of the duodenum may be observed, but not so readily. This irregularity of the bulb may be of different shapes, and, as stated, it is really the only positive or direct evidence of duodenal ulcer. The indirect evidences, as brought out by the essayist, are the gastric symptoms, hypermotility and hyper-peristalsis, gastric spasm, etc. In gastric ulcer the only direct sign is the niche or the pouching out of the opaque meal as it fills up the depression or crater of the ulcer, and then also the accessory pocket as the result of perforation. Of course, the indirect symptoms or x-ray signs of gastric ulcer are similar to those of the duodenum; we have retention after the six-hour period following the bismuth meal and possibly gastric retention, we have the gastric spasm, the pouching out opposite the niche, hypermotility, and all those things. One thing ought to be borne in mind, and that is that you might possibly have the two ulcers combined in perhaps 12 to 15 per cent. of cases, and one should be very thorough in making examination to try to eliminate if possible both lesions. In the x-ray examination with the opaque meal in the stomach you get the outline of the stomach very nicely, and on finding

tender points over the niche, or if you have a depression of the gastric or duodenal surface with a tender point over it, you can say almost definitely that you have an ulcer at that location.

**Dr. E. E. Morton, Des Moines**—I would like to commend Dr. Strawn's paper, and particularly one point which I think we should hereafter pay more attention to; that is, to get the history especially. To make this diagnosis correspond we should take a complete history of the case. In making diagnosis of gastric or duodenal ulcer most of us merely put our fingers over the region and make conclusions before eliminating. The mistake of a great many of us is that we try to eliminate before we have anything to eliminate. Commence at the outside and make general examination, then do the eliminating and make the general deduction after doing the elimination. There has been considerable discussion as to the etiology, but we are in deep water when we try to find out where we are in this respect. As to the x-ray I am of the opinion that we should use it to verify the diagnosis. I believe we should make our diagnosis previously and verify it by the x-ray as in bone cases. You first make diagnosis of a bone case and then verify your diagnosis by the x-ray, and I think this is a good plan in gastric and duodenal ulcers. I wish to defend Dr. Moynihan in regard to the correspondence course. I think that Dr. Brock did not state that just right. Dr. Moynihan made the assertion that in a typical, well-marked case, by enumerating the symptoms the condition can be diagnosed by correspondence, and I believe he is right. He is the man who told us that about 20 per cent. of peptic ulcers were found in the lower right quadrant, about over the neighborhood of the appendix, and I think he is right. Another thing about diagnosis of a peptic ulcer is that we should search over the abdomen more than we have done in the past, for hernia. In several cases that have been diagnosed as peptic ulcer, upon looking the case over carefully we have found an epigastric hernia and what not, the condition very often giving rise to the same symptoms as ulcer, and if you relieve this condition you correct the symptoms attributable to ulcer.

**Dr. H. J. G. Koobs, President, South Dakota State Medical Association, Scotland, S. D.**—The topic of peptic ulcer has been discussed so frequently that it is an old story perhaps, and yet it is always of great interest. By way of diagnosis, there is one point that I do not believe has been mentioned, a fact that Dr. Williamson of Chicago lays much stress upon, namely: That in all cases of peptic ulcer there is most always an occult hemorrhage, a fact which I believe should not be forgotten. If there is any question about diagnosis be sure to look for some sign of blood in the feces, which can be determined by proper examination. In regard to treatment, I believe it is generally accepted that the treatment divides itself into two phases: That of the uncomplicated ulcer, and that of the ulcer with complications. In the former condition the treatment is practically always medical, in the second it is almost always sur-

gical. The treatment outlined by Dr. Strawn is a splendid one, and I am reminded that a good many years ago Dr. Futterer of Chicago laid down a similar treatment for this condition: That is, he laid stress on the fact that first absolute rest is necessary. And for that he enjoined rest in bed such as has been recommended here, perhaps as a rule not for as long a period of time, but for at least a week, during that time the patient to receive no food by the stomach, but be given rectal feeding. Of course, we know that this procedure cannot be kept up over a long period, and perhaps is not of much use at any time. However, I have no doubt he was correct in the statement that rest is the best treatment. Then following the period of rest, when he began to give food by the stomach, he gave, properly prepared, beef juice from one to two pounds of beef per day, with splendid results. With that exception his treatment was similar to this, and I have found in my own experience that it is very rational and a correct one.

**Dr. Strawn**—Perhaps one thing in the paper ought to be emphasized a little more, and that is that the tendency of gastric and duodenal ulcers is to recur. One of the main possibilities that the surgeon, in his work on these cases, ought to be warned against is recurrence. I believe that if the patient is told frankly that these ulcers are likely to recur, warned all the way through the management of his case that such a thing is likely, at the same time instructing him that at the first sign of his old symptoms he should immediately go back to the treatment, the condition will be checked effectually. If proper neutralization is given, the patient with recurrence symptoms will make rapid strides towards recovery. Again, quite a few persons have a dislike for milk and cream, and after such a patient has been fed on cream for a short time it becomes obnoxious to him. In such a case it is not advisable to keep the patient on milk, but to substitute vegetables and cereals, the milk and cream added to these as much as possible. Another thing in the management that sometimes bothers is the regulation of the bowels. These cases, early in the course, should be put on a vegetable diet without oil, to control the bowels. The bowels can be controlled nicely in that way, and yet the neutralization can be kept up. In regard to the use of the ball and string, mentioned in the discussion, some time ago Dr. Smithes of Chicago tried that out and in only a very small percentage of cases did he find it of benefit in making the diagnosis. Therefore he concluded that the method was absolutely worthless as a means of diagnosis. In reference to the finding of occult blood, mentioned by Dr. Koobs, I feel that this is an important sign and deserves emphasis. Yet at the time we have a patient for examination we cannot always elicit this sign, but stool examinations right along every day will help us out. One thing more. Dr. Smith has recently advised that the patient be induced to chew paraffin wax. Since his article containing this recommendation appeared I have asked several of my patients to spend time in chewing paraffin wax, and I really believe it is a

great help to them. The alkaline saliva perhaps aids in neutralization and the chewing of the wax keeps the mouth moist and clean. I feel that I can recommend this measure to you.

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### IMPORTANT ANNOUNCEMENT

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The Medical Review of Reviews announces that it has just purchased the third oldest medical journal in America—the Buffalo Medical Journal—founded seventy-four years ago by Dr. Austin Flint, and published regularly ever since.

The Medical Review of Reviews is to absorb the Buffalo Medical Journal, beginning with its January, 1919 issue. This is the third publication which the Review has purchased during the past few years.

The Medical Review of Reviews further announces that it will be greatly increased in size beginning with the January, 1919 issue, but that the subscription price is not to be increased.

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### NO MORE PHYSICIANS TO BE COMMISSIONED IN THE MEDICAL CORPS

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At 10:00 o'clock on the morning of November 11, the War Department discontinued the commissioning of physicians in the Medical Corps.

This condition, in all probability, is permanent and no further consideration will be given applicants for a commission in the Medical Corps until further notice.

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### THE "SPANISH INFLUENZA"

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Referring to some historical observations, it appears that influenza visited this country in 1674, starting as far as known, from Valencia, Spain. In 1889-1890 an epidemic first spread from the Orient to Russia and then over the entire civilized world. Three years later there was a recrudescence of the disease. Between 1647 and 1890 several epidemics have spread over the country. There seems to be no good reason to suppose the present epidemic differs materially from previous epidemics.

Since the appearance of the epidemic, the death rate in many cities has very considerably increased. In Boston the death rate under normal conditions is 19 or 20 per thousand; since the influenza came the death rate has increased to 63 per thousand.

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Rhode Island Medical Journal has been discontinued, at least, during the period of the war. For several years the Providence Medical Journal published the transactions of the State Society. Two years ago it became the Rhode Island Medical Journal and now on account of conditions incident to the war, the committee of publications decided to discontinue its publication. We regret the decision of the committee, but trust that conditions will improve and that the Rhode Island Medical Journal will soon appear among the list of state society journals.

# The Journal of the Iowa State Medical Society

D. S. FAIRCHILD, Editor.....Clinton, Iowa

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## THE SECOND PHASE OF THE WAR

Many people no doubt suppose that with an end to explosives, gas shells and trenches, that the war is over, and that we may return to our ordinary way of living. That we sign some agreement and the soldiers return home. It is probable we have before us some of the most difficult problems. Heretofore the problem was men, guns, ammunition and money. Could we furnish them? Now we have the social and economic interest of the world for many years to come to consider. Interests will be varied and different, perhaps conflicting. Diplomacy and prestige will weight greatly. Fairness and justice will be claimed by all, but there will be a different way of looking at fairness and justice.

Mr. Wilson has given his interpretation on these elements of settlement and the United States has been asked to endorse the views of the president, but to the astonishment and painful disappointment of many loyal subjects, politicians, special interests and pro-Germans joined in refusing what Mr. Wilson reasonably asked for and it would not be strange if foreign countries should believe that the failure to secure a vote of confidence, the United States, was not with the president and this fact might seriously complicate matters.

It is painful to believe that men cannot separate themselves from personal interests and party politics long enough to settle great world questions. This feeling has been greatly relieved how-

ever by the declaration of the Republican leader in the United States Senate that he was fully in accord with Mr. Wilson's views and that he would unqualifiedly support Mr. Wilson's policies.

This attitude of Mr. Lodge is said to have caused great surprise to both Republicans and Democrats. It certainly gave great relief to those who were anxiously watching the course of events. Friendly criticism is to be cordially welcomed but selfish obstruction is to be condemned.

During the settlement of the great national interests before us and for some time after probably we must continue to make sacrifices, we must support committees and national welfare organizations, particularly, the Red Cross activities must be maintained by liberal contributions. For this purpose many pages of the Journal will be devoted to Red Cross propaganda and the support of the Y. M. C. A., Knights of Columbus and Salvation Army for work at home and abroad. The usefulness of these organizations will be no less now, and in the future, than in the past. We must look to them for a very important help in maintaining the moral standards, and the regeneration of distracted nations. If we should in the least relax our efforts in directing the welfare of the nations, the most disastrous results will certainly follow. No one is wise enough to foresee what will happen if the most watchful care of the health and moral conditions are neglected.

A retrospective view of the war brings to our minds the mental qualities and peculiarities of the American people or the admixture of races which make up the American people. Without reference to a comparison with other people, particularly the English speaking, we note certain facts which may be accepted now without question; among which may be mentioned physical and moral courage and a high sense of loyalty to an idea. No one can doubt now, that however centered on individual interests we may be, we can make the sacrifice when the hour comes to do so.

We feel now that we may record an inventory of our accomplishments in several particulars. The physical and moral courage of our soldiers and their resourcefulness has been illustrated by our friends and neighbors in battle with the soldiers of the most thoroughly organized military power of the world, as related to us by those most competent observers. Not only the physical and moral courage of our soldiers but the loyalty, courage and sacrifice of our medical men and women, both those who served at the war

front, and those who served in the cantonments in our own country, who suffered even more, because from the necessities of the service, they were deprived of the privilege of serving overseas. We have collected data which may serve to illustrate all we have referred to and take some part of this number to relate some of the things our men did.

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Headquarters, 42nd Division, American Expeditionary Forces, France, August 13, 1918.

To the Officers and Men of the 42nd Division: A year has elapsed since the formation of your organization. It is, therefore, fitting to consider what you have accomplished as a combat division and what you should prepare to accomplish in the future.

Your first elements entered the trenches in Lorraine on February 21. You served on that front for 110 days. You were the first American division to hold a divisional sector and when you left the sector June 21st, you had served continuously as a division in the trenches for a longer time than any other American division. Although you entered the sector without experience in actual warfare, you so conducted yourselves as to win the respect and affection of the French veterans with whom you fought. Under gas and bombardment, in raids, in patrols, in the heat of hand to hand combat and in the long dull hours of trench routine so trying to a soldier's spirit, you bore yourselves in a manner worthy of the traditions of our country.

You were withdrawn from Lorraine and moved immediately to the Champagne front where during the critical days from July 14 to July 18, you had the honor of being the only American division to fight in General Gouraud's Army which so gloriously obeyed his order, "We will stand or die," and by its iron defense crushed the German assault and made possible the offensive of July 18 to the west of Reims.

From Champagne you were called to take part in exploiting the success north of the Marne. Fresh from the battle front before Chalons, you were thrown against the picked troops of Germany. For eight consecutive days, you attacked skillfully prepared positions. You captured great stores of arms and munitions. You forced the crossings of the Ourcq. You took Hill 212, Sergy, Meurcy Ferme, and Seringes by assault. You drove the enemy, including an Imperial Guard Division, before you for a depth of fifteen kilometers. When your infantry was relieved, it was in full pursuit of the retreating Germans, and your artillery continued to progress and support another American division in the advance to the Vesle.

For your services in Lorraine, your division was formally commended in general orders by the French Army Corps under which you served. For your services in Champagne, your assembled officers received the personal thanks and commendation of General Gouraud himself. For your services on the Ourcq, your division was officially complimented

in a letter from the Commanding General, 1st Army Corps, of July 28, 1918.

To your success, all ranks and all services have contributed, and I desire to express to every man in the command my appreciation of his devoted and courageous effort.

However, our position places a burden of responsibility upon us which we must strive to bear steadily forward without faltering. To our comrades who have fallen, we owe the sacred obligation of maintaining the reputation which they died to establish. The influence of our performance on our allies and on our enemies cannot be over-estimated for we were one of the first divisions sent from our country to France to show the world that Americans can fight.

Hard battles and long campaigns lie before us. Only by ceaseless vigilance and tireless preparation can we fit ourselves for them. I urge you, therefore, to approach the future with confidence but above all with firm determination that so far as it is in your power you will spare no effort whether in training or in combat to maintain the record of our division and the honor of our country.

CHARLES T. MENOHER,  
Major General, U. S. Army.

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Headquarters, 42nd Division, office of the surgeon, American Expeditionary Forces, August 9, 1918.

Memorandum No. 160. To Surgeons of all Organizations: 1. The division surgeon takes this opportunity to convey to all medical personnel of the division, commissioned and enlisted, his great appreciation of the character of the service rendered while in the Champagne and this sector. The service has been of such quality as to draw highest commendation from every source. The spirit of loyalty has been manifest in every unit. The care of the wounded from the firing line to the hospitals has been most excellent. We consider ourselves fortunate in having participated where the greatest battle in the history of the world was fought and was able to do our part in winning the same, and thus contributing our share in making this world a fit place to live in. Let us continue to bend every energy to the one aim of affording the earliest possible relief to the wounded. By early and careful administration of first aid, by every possible care for the comfort of the wounded and their rapid evacuation to the hospital, we render the most valuable service. No service in the division approaches it in value as a means for maintaining the morale of the troops.

2. The division surgeon again assures you of his appreciation of your past magnificent services and feels certain that in our future activities the medical department of the 42nd division will call forth an even greater measure of commendation.

3. Remember that through proper co-operation and absolute self-sacrifice to duty, an early victory is certain.

D. S. FAIRCHILD, Jr.,  
Col. Med. Corps, N. G., Div. Sur.

Headquarters Forty-second Division, American Expeditionary Forces, France, November 11, 1918.

To all the Officers and Men of the Forty-second Division: On the thirteenth of August I addressed to you a letter summarizing the record of your achievements in Lorraine, before Chalons, and on the Ourcq. On the occasion of my leaving the division I wish to recall to you your services since that time and to express to you my appreciation of the unfailing spirit of courage and cheerfulness with which you have met and overcome the difficult tasks which have confronted you. After leaving the region of Chateau Thierry you had scarcely been assembled in your new area when you were ordered to advance by hard night marches to participate in the attack of the St. Mihiel salient. In this first great operation of the American army you were instructed to attack in the center of the Fourth army corps and to deliver the main blow in the direction of the heights overlooking the Madine river.

In the battle that followed you took every objective in accordance with the plan of the army commander. You advanced fourteen kilometers in twenty-eight hours. You pushed forward advanced elements five kilometers farther, or nineteen kilometers beyond your original starting point. You took more than 1,000 prisoners from nine enemy divisions; you captured seven villages and forty-two square kilometers of territory. You seized large supplies of food, clothing, ammunition, guns and engineering material.

Worn though you were by ceaseless campaigning since February you then moved to Verdun region to participate in the great blow which your country's armies have struck west of the Muese. You took Hill No. 288 La Tuilerie farm, and the Cote de Chatillon and broke squarely across the powerful Kriemhilde Stellung, clearing the way for the advance beyond St. Georges and Landres et St. Georges.

Marching and fighting day and night, you thrust through the advancing lines of the forward troops of the first army. You drove the enemy across the Muese. You captured the heights dominating the river before Sedan and reached in the enemy lines the farthest point attained by any American troops.

Since September 12, you have taken over twelve hundred prisoners; you have freed twenty-five French villages; you have recovered over 150 square kilometers of French territory, and you have captured great supplies of enemy munitions and material.

Whatever may come in the future the men of this division will have the proud consciousness that they have thus far fought wherever the American flag has flown most gloriously in this war. In the determining battle before Chalons, in the bloody drive from Chateau Thierry to the Vesle, in the blotting out of the St. Mihiel salient, and in the advance to Sedan you have played a splendid and a leading part.

I know that you will give the same unfailing support to whomever may succeed me as your commander and that you will continue to bear forward

without faltering the colors of the Rainbow Division. I leave you with deep and affectionate regret, and I thank you again for your loyalty to me and your services to your country. You have struck a vital blow in the greatest war in history. You have proved to the world in no mean measure that your country can defend its own.

CHARLES T. MENOHER,  
Major General, U. S. A.

In the last great battle of the American troops, that beginning on September 26, and which was resumed with renewed force on November 1, twenty-one divisions participated, comprising a total of 750,000 combat troops.

On September 26 nine divisions went over the top. Some of these nine continued hammering the Hun for three consecutive weeks, one of the particularly hardy fighters being the 42nd or Rainbow Division, which held on the enemy's heels with wonderful tenacity.

Another division which made a remarkable showing, and which received splendid letters of commendation from men higher up, was the 77th, all New York boys. These fellows got into the fight again with a bang on November 1, jumping off from just north of Grandpré and shooting ahead through terribly hard fighting at Champigneulle up through Thenorgues and into Buzancy. They were relieved by the 42nd boys, who after traveling at a very rapid gait kept up with the troops of which they were reserves, double-quickened after taking over the line and got into the race which took them with the fighters of the first division composed of regulars, into the final advance to the edge of Sedan.

Some idea of the swift pace of the Forty-second Division in the last week of fighting may be obtained by a study of the map in connection with the following dates and the names of the towns occupied by the division headquarters. On November 1, they were at Exermont, on November 2 in Sommerance. On the 3rd they started for Verpel, which they reached on the 4th; on the 5th they started for Fontenac, and on the 6th were in Maisoncelle, from which place they advanced patrols toward Sedan.

From Exermont to Maisoncelle is nearly forty kilometers and to Sedan is another twelve.

Fighting side by side with the Seventy-seventh Division were the Seventy-eighth and Eightieth, the latter composed of men of Pittsburgh and its neighborhood. In another sector were the Forty-ninth and the Second. The former, under the command of General Wright, who is now promoted to corps work, was the one which took Stenay and advanced deeply toward Montmedy before the armistice stopped them.

One of the clever tricks of war was used by the patrols of the Eighty-ninth in crossing the Muese on rafts in addition to pontoons and bringing back prisoners. It was the Second which set a terrible pace in battle and forced in the Hun center the first day.

Still in another part were the Fifth and Ninetieth Divisions which were supported by the Third and Thirty-second. General Johnson commanded the Seventy-seventh and General MacArthur the Forty-second.

Another division which did a great amount of hard fighting was the Twenty-sixth, composed of New England men, who were the ones who took the Bois Belleau after such desperate opposition by the Boche.—New York Herald, Paris Edition.

November 4, 1918.

Honorable Newton D. Baker, Chairman,  
Council of National Defense,  
Washington, D. C.

My Dear Mr. Chairman:

I have the honor to submit the following summary of a report on the progress of enrollment in the Volunteer Medical Service Corps.

I. More than sixty thousand enrollments with complete application blanks are now on record in the office of the Medical Section of the Council of National Defense.

II. A classification of these sixty thousand applications based upon four thousand completed code cards of the Hollerith system gives the following results:

#### Class 1—

(a) Physicians under fifty-five years of age who are without an obvious physical disability which is disqualifying and without dependents.

(b) Physicians under fifty-five years of age, who are without an obvious physical disability which is disqualifying and with one dependent in addition to self.

Of the sixty thousand applications, there are 11,250 registered in Class 1.

#### Class 2—

(a) Physicians under fifty-five years of age, who are without obvious physical disability which is disqualifying and with not more than three dependents in addition to self.

Of the sixty thousand applications, there are 10,125 registered in Class 2.

#### Class 3—

(a) Physicians under fifty-five years of age who are without obvious physical disability which is disqualifying, and with more than three dependents in addition to self.

(b) Physicians essential to communities.

(c) Physicians essential to institutions.

(d) Physicians essential to health departments.

(e) Physicians essential to medical schools.

(f) Physicians essential to industries.

(g) Physicians essential to local and medical advisory boards.

Of the sixty thousand applications, there are 10,125 registered in Class 3.

#### Class 4—

(a) Physicians over fifty-five years of age.

(b) Physicians under fifty-five years of age with an obvious physical disability which is disqualifying.

(c) Physicians rejected for all government service because of physical disability.

(d) Women physicians.

Of the sixty thousand applications, there are 19,125 registered in Class 4.

#### Class 5—

(a) Physicians who are professionally or morally ineligible.

In Class 5 there are 1,440 physicians registered.

#### Class 6—

(a) Physicians whose disqualifications were waived.

In Class 6 there are thirty physicians registered.

#### Class 7—Exceptions to Class 1—

There are 2,955 registered in Class 7.

#### Class 8—Exception to Class 2—

There are 3,045 registered in Class 8.

#### III. (a) Medical Group.

1. 49,200 physicians were registered as general practitioners and obstetricians.

2. 1,080 general practitioners were registered who do 10 per cent. surgery.

3. 690 general practitioners with hospital appointment.

4. 315 internists or expert consultants.

5. 375 pulmonary experts.

6. 390 pediatricians.

#### (b) Surgical Group.

1. 585 surgeons exclusively.

2. 1,785 surgeons with 10 per cent medicine.

3. 300 surgeons with hospital appointments.

4. 45 orthopedists.

5. 450 genito-urinary surgeons.

6. 45 oral surgeons.

7. 270 gynecological and abdominal surgeons.

8. 150 railway surgeons.

9. 75 anesthetists.

#### (c) Specialist Group.

1. 305 ophthalmologists.

2. 1,845 eye, ear, nose and throat specialists.

3. 360 neurologists.

4. 135 psychiatrists.

#### (d) Laboratory Group.

1. 60 pathologists.

2. 90 bacteriologists.

3. 75 clinical microscopists.

4. 30 chemists.

5. 255 hygienists and sanitarians.

6. 150 radiologists.

#### IV. Preference of Service.

(a) 29,820 expressed a preference for service in the Medical Reserve Corps of the Army.

(b) 3,945 expressed a preference for service in the Naval Reserve Force.

(c) 15,750 on first or second choice, are desirous of entering the Public Health Service.

(d) 2,300 expressed a preference for service on Medical Advisory Boards.

(e) 1,125 expressed a preference for service on Local Advisory Boards.

(f) 22,500 expressed a preference for service on either Medical Advisory Boards or Local Advisory Boards.

#### V. Industrial Service.

(a) 45,495 have never been employed in industries.

(b) 5,565 have done surgical work in industrial plants.

(c) 6,840 both surgical and medical work in industrial plants.

(d) 1,725 are employed in contract practice for families of workmen.

#### VI. Languages.

(a) 50,730 speak only English.

(b) 1,155 speak French and English.

(c) 4,125 speak German and English.

(d) 1,650 speak French, German and English.

(e) 585 Spanish and English.

(f) 120 speak French, Italian and English.

(g) 90 speak Italian.

(h) 330 speak French and one other modern language.

(i) 945 speak Russian, Japanese, Norwegian, Danish or Yiddish.

(j) 270 speak other languages not mentioned.

The definite result, shown by this survey which was only begun sixty days ago, is extremely gratifying, and the information that is not available in any other form should be of great value for war or peace. We can safely count on a total of 75,000 applications for membership in this Corps, judging from the rate of enrollment at present. Add to this the 35,000 doctors that are in service and that are thoroughly classified, we have a record of the profession of the United States of inestimable value, of 110,000 of the estimated 130,000 legalized practitioners in the whole country. Especially is it interesting when it is realized that all members of the Volunteer Medical Service Corps have practically pledged themselves to serve their government in any medical work they may be asked to perform.

Respectfully yours,

(Signed) FRANKLIN MARTIN.

In accordance with the Council of National Defense as a voluntary medical service corps worker, Dr. Julia F. Hill was accepted the first of October, and signed a contract made with her by Surgeon General Gorgas, and was sent by him to United States General Hospital No. 6, Fort McPherson, Georgia, where she is doing laboratory work under Captain Klew. There are two other lieutenants in the laboratory who are men, and five other women who are technicians but not physicians. This laboratory has just been made a departmental laboratory for the ten

southeasterly states. This means that any work which the cantonments or posts in these states are not equipped to take care of will be sent to General Hospital No. 6. This month (November), Dr. Hill has been asked to assist Captain Graham, who is a graduate of the State College at Ames, and who has been an instructor there and elsewhere for ten years before entering the service of the government. He is doing glanders work, but is likely to be transferred to a laboratory in France. There are only six trained veterinary workers in the government employ, and all of them are needed to test horses and mules before they are transported back to this country, therefore Dr. Hill is likely in a few weeks to be placed in charge of this kind of work, and the responsibility is great, for all animals which prove to be infected are killed.

From—Volunteer Service Corps, Council of National Defense.

To—Dr. Julia Ford Hill, Des Moines, Iowa.

Subject—Enrollment of the Medical Women in the Volunteer Medical Service Corps.

1. The President of the Volunteer Medical Service Corps directs me to inform you the result of the recent survey of medical women for the Volunteer Medical Service Corps.

2. There are approximately 5,799 medical women in the United States and on October 25, 1,236 of them had sent in their applications for the Corps, a percentage of 21.7 pro rata. Approximately 60,000 medical men of the 95,000 not in active military service have applied for membership, or 63 per cent. of the total number. The qualifications of all those physicians who have filled out a four page application blank and signed the pledge are now being classified and coded. You will be interested in glancing over the attached page which shows the result of the survey by states of women physicians.

3. The object of the Volunteer Medical Service Corps is to enroll, classify and code all those reputable physicians who voluntarily register their patriotic willingness to respond to a military or civilian call from the Army, Navy, United States Public Health Service or civil communities. During war, demobilization and the reconstruction period, the names of those physicians who are members of the Volunteer Medical Service Corps can be automatically selected from the coding machine at an hour's notice for any selective service that may be requested.

4. We trust that if you have occasion to pass through Washington, you will take for granted that a cordial welcome awaits you at the Medical Section of the Council of National Defense, where the system of coding, classifying and filing the qualifications of physicians registered with the government may be observed.

EMMA WHEAT GILLMORE.

October 25, 1918.

Percentage of Women in Each State Enrolled in the  
Volunteer Medical Service Corps

State	Approximate Number of Women Physicians	Number in V.M.S.C.	Percentage in V.M.S.C.	State Rank in Membership
Alabama .....	12	4	33.3	13
Arizona .....	14	5	35.7	12
Arkansas .....	36	11	30.6	18
California .....	540	89	16.5	37
Colorado .....	115	27	23.5	27
Connecticut .....	62	14	22.6	30
Delaware .....	6	5	83.3	1
Dist. of Columbia..	74	7	9.5	48
Florida .....	39	7	17.9	35
Georgia .....	34	9	26.5	20
Idaho .....	16	3	18.8	34
Illinois .....	673	72	10.7	46
Indiana .....	170	41	24.1	25
Iowa .....	178	19	10.7	45
Kansas .....	97	13	13.4	42
Kentucky .....	75	18	24.0	26
Louisiana .....	25	5	20.0	32
Maine .....	36	9	25.0	24
Maryland .....	87	6	6.9	49
Massachusetts .....	326	121	37.1	11
Michigan .....	213	28	13.1	43
Minnesota .....	115	35	30.4	19
Mississippi .....	16	6	37.5	10
Missouri .....	186	70	37.6	9
Montana .....	22	7	31.8	17
Nebraska .....	128	20	15.6	39
Nevada .....	7	5	71.4	3
New Hampshire....	38	10	26.3	21
New Jersey.....	166	33	19.9	33
New Mexico.....	6	5	83.3	2
New York.....	860	110	12.8	44
North Carolina....	23	6	26.1	22
North Dakota.....	11	7	63.6	5
Ohio .....	318	142	44.7	8
Oklahoma .....	50	5	10.0	47
Oregon .....	74	24	32.4	16
Pennsylvania .....	530	114	21.5	31
Rhode Island.....	31	14	45.2	6
South Carolina....	16	11	68.8	4
South Dakota.....	23	4	17.4	36
Tennessee .....	36	5	13.9	41
Texas .....	91	23	25.3	23
Utah .....	15	5	33.3	14
Vermont .....	13	3	23.1	28
Virginia .....	22	5	22.7	29
Washington .....	86	14	16.3	38
West Virginia.....	20	3	15.0	40
Wisconsin .....	71	32	45.1	7
Wyoming .....	15	5	33.3	15
Total.....	5,699	1,236	21.7	—

DR. C. W. WHITE ON TUBERCULOSIS

France is finding in tuberculosis one of the worst of war's by-products. Before the conflict

had continued two years her hospitals were filled with soldiers suffering from the plague and facilities for adequate care of them were lacking. The following facts as to measures invoked are extracted from a recent report by Dr. William Charles White, Chief of the Bureau of Tuberculosis, of the American Red Cross in France:

When the American Red Cross, in cooperation with the Rockefeller foundation, entered the fight against tuberculosis in France, the Service de Sante of the Army was utilizing all the main French institutions, and there was little room available for the women, children and old men suffering from the disease. Last October there were 8,879 tuberculous French soldiers, not yet discharged from service, and for these 6,521 beds had been provided in thirty-seven hospitals. Between August, 1914, and November, 1917, there were 80,551 soldiers discharged from the army on account of tuberculosis and the French department of the interior undertook to provide for their care by means of Stations Sanitaires and departmental committees.

Until recently practically no provision had been made for the repatriates—that portion of the population which had been engulfed by the German advance into France and Belgium, and, being no longer of any economic use to Germany, the aged, the young, and the diseased had been sent back into France. A large proportion of these are consumptive. The wretched housing conditions in which many refugees were compelled to live in Paris and elsewhere made them peculiarly subject to tuberculosis.

A careful survey of the field indicated that the Red Cross could render most effective assistance among these groups. The first opportunity for usefulness came in the survey of conditions in the tuberculosis barracks which had been provided by the Assistance Publique in connection with the large hospitals and alms-houses in Paris. There were 1052 beds in them, yet only 174 were occupied. Unattractive conditions seemed to explain, in large part, the failure of the sick to make full use of this institution. The American Red Cross thereupon increased the nursing force, established diet kitchens and recreation rooms, and provided additional clothing and materials, such as bed covers and flowers. The institution quickly became more popular and soon was caring for 657 patients. Later, new cure halls, dining rooms, and recreation rooms, were constructed by the Red Cross.

A survey of the institutions outside of Paris showed that these provided 11,000 beds for a population of 39,500,000 persons, with a total death rate from tuberculosis in 1913 of 84,443. Many

of these institutions required additional bedding, food and equipment, which the American Red Cross undertook to furnish at a cost to it of approximately 100,000 francs a month.

Another plan similar to the Home Hospital plan in New York City now is being used in France, especially for those refugee and repatriates families with tuberculosis members. These, if allowed to go into ordinary houses well might spread infection. The new plan contemplates placing such families in small houses especially constructed for the care of a tuberculosis member. Each house is composed of three rooms—two sleeping rooms and a living room—with a small porch for the patient. The children will be placed in open-air schools, and those able to work will be given vocational training in such trades as gardening, carpentry, tailoring and shoemaking. The domiciliary care of the consumptive, it is believed, is one of the most important factors in the war against tuberculosis in France, as elsewhere.

After studying the question of the relation of tuberculosis to the various armies, it was decided that the American army, no matter how careful the exclusion of tuberculosis cases in the draft, would still have to deal with a group of cases which would develop tuberculosis from existing lesions not possible of diagnosis in earlier examinations. It was thought that this was a field of work in which the American Red Cross could give assistance to our own army in France. It seemed obvious that there would appear certain pneumonic types of tuberculosis, certain acute military cases, severe hemorrhagic and pleuritic cases, and probably a number of cases of tuberculosis in parts of the body other than the lungs.

An offer to the army headquarters to provide a hospital near the shipping ports where the Red Cross would be given permission to take care of such cases needing attention prior to their return home, has been accepted. The American Red Cross will undertake the provision of one such hospital which then will be turned over to the army. A similar institution may be provided at a second point.

Four tuberculosis hospitals in France are now maintained and conducted solely by the American Red Cross and ninety-six French hospitals are aided with funds and supplies and in addition much educational and visitational work is being done.

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#### THE MEDICAL MEMBER OF THE EXEMPTION BOARD OR THE MEDICAL EXAMINER OF EXEMPTION BOARDS

If one were pressed for an answer to an inquiry as to the medical examiner of the exemption board it might be admitted that he was a very useful person but that he made most of the mistakes of the war. It is true that 365 or more changes were made in the regulations for the year of active service, but that did not count. The examiner ought to have made these changes unnecessary. The examiner was with regularity emptied of all professional understanding; he was not permitted to examine men for foreign boards; he was then required to examine for foreign boards; he was not permitted to pass on men unless both legs or both arms or both eyes were gone as to their fitness for military service, and then when his self assurance was sufficiently brought down, he was allowed to pass on men with one leg, or one arm, or one eye without the assistance of advisory board. Finally after he had been sufficiently humbled he was even permitted to defy the advisory board and classify men according to his own judgment but to prevent too great exaltation of mind he was required to have a lay member approve his action. No day passed but the medical member was reminded of his short comings and various meetings were held in order that the public might see and marvel at the ignorance of him. No public executions were held but such might have happened if the war had lasted a year longer. Now that it is all ended and secrets may be revealed, no one may know of the green-eyed jealousy of the medical examiner when he saw bright uniforms with from a single bar on the shoulder to an eagle, going about on some errand or another, while he went about with the plainest clothes often threadbare, out at the knees, embroidered above the shoe tops, but so far as known this was borne with proper spirit of humility.

Then there was the advisory board, and, above all, the camp examiners in uniform. We have been told of instances in which the government has been protected against the ignorance of board examiners.

We have heard of instances where a large number of men have been sent from one camp to another classified as limited service men and there re-examined and classified as general service men, in one instance about 1600 men.

We have nothing but admiration for the plan worked out by Provost Marshal General Crowder in his selective service scheme, it has been of fundamental value in raising a great and efficient

army. The local boards did the work at a great sacrifice of time, comfort and loss of community reputation. No doubt many physicians have suffered irreparable loss of practice. He could not successfully serve both the government and individual members of the community who desired to escape army service. His loss was infinitely greater than the lay members of the board because of his relation to individual members of the community.

We have heard no complaints from medical members of boards, but now that it is all over and the armies are mustered out of service, we feel it a duty to review some of the facts which should have been taken into account, and which should be thought of now. It is not too much to say now that the country is under a greater debt to the medical profession than to any other class, not only in raising a great army but in maintaining it in a condition of efficiency. We are printing the last communication from the War Department which is unfair and unjust and inferences may be drawn from it that should be resented by medical men as obscure and commonplace as the medical members of exemption boards, who have given valuable service with practically no compensation and as it appears now with loss of credit with the War Department and the community at home.

We are appending the report of one member including his own individual work.

We should never forget to bring prominently before the public what medical science has done for our army. It does not take long to say what has been done in twenty years. Twenty years ago we mobilized an army of about 135,000 men and in thirteen months we lost in battle casualties 293 men, from disease 3681.

In France during the late war in an army of about 2,000,000 in a report made up to November 11, 1918, covering about the same length of time our losses in battle casualties were 36,153, from disease 14,511.

In the war twenty years ago about fourteen died of disease to one in battle. In this last war three were killed or died of wounds to one who died of disease. To what influence is this vast difference due? To the influence of the medical department of the army directly or indirectly.

STATISTICS OF REJECTIONS

Flat foot.....	5
(a) Exostosis .....	8
(b) Congenital deformity.....	10
(c) Deformity due to injury.....	3
Total.....	26

Stammering .....	8
Hernia .....	32
Eye defects.....	51
Testicle in inguinal canal.....	2
Underweight .....	30
Teeth .....	16
Fracture of hip shortening and deformity.....	1
Goitre heart.....	8
General physical disability.....	2
Thumb absent.....	1
Potts fracture-deformity.....	2
Contracted thumb.....	1
Defective chest development.....	5
Heart .....	31
Tuberculosis .....	8
Necrosis of bone.....	1
Fingers amputated.....	4
Paralysis of arm.....	2
Hydrocele .....	1
Dislocation of Patella.....	1
Tender heel (Exostosis).....	1
Disease of ear.....	15
Epilepsy .....	6
Fracture of Femur-shortening.....	1
Varicose veins.....	6
Cleft palate.....	1
Leg amputated.....	5
Paralysis of leg.....	6
Hydro-nephrosis .....	1
Asthma .....	4
Mental deficiency.....	16
Diabetis .....	1
Spinal curvature.....	5
Overweight .....	4
Deformities of fingers.....	2
Thumb and fingers amputated.....	2
Deaf and dumb.....	4
Chronic inflammation of knee.....	1
Goitre .....	1
Rectal fistula.....	1
Rheumatism .....	1
Extensive deforming scar from burn.....	1
Arthritis deformans.....	1
Foot amputated.....	1
Multiple skin tumors.....	1
Chorea .....	1
Chronic bronchitis.....	1
Atrophied leg—injuries.....	1
Progressive muscular atrophy.....	1
Crippled shoulder—paralysis of circumflex.....	1
Hemiplegia .....	2
Lymph edema of feet and legs.....	2
Deformed hip paralytic atrophic.....	1
Unreduced dislocated hip.....	1

Men Examined

Group one.....	238
Group two.....	555
Group three.....	188
Group four.....	592
Reclassified .....	29
Total.....	1,602

Rejected (group 1).....	63
Rejected (group 2).....	59
Rejected (group 3).....	27
Rejected (group 4).....	177% 30+
Rejected reclassified....	5
<hr/>	
Total.....	331% 20+
Total number of registrants.....	4,695

PHYSICAL EXAMINATION OF REGISTRANTS

To Medical Examiners Under the Selective Service:  
This letter is addressed to all connected with physical examinations of registrants, with the object of bringing to each one a clear conception of the importance of the work and the need for close cooperation. The letter will be followed by suggestions, from time to time, as to how such cooperation may be obtained.  
With a full appreciation that physical examination is the last step in the selective service work, and that upon it rests the final determination of the fitness of registrants for military service, the Provost Marshal General has established a medical division in his office. This division comes in direct touch with medical aides, and through them with all board examiners. It studies the results of the work of medical examiners in each state, as indicated by the reports of final examinations made at mobilization camps.

It is desirable that board examiners should be made aware that a report of every case that is rejected at camp is filed in the Provost Marshal General's Office; that these rejections are classified by states; and that each local board of each state has all of its rejections filed separately. Each of the 4,648 local boards of the United States discloses thereby its own individuality to the Medical Division of the Provost Marshal General's Office. The division knows just what character of work is being done; what number of cases of obvious defects have been sent to camp by each board; what number of cases of heart disease have passed undetected; how many cases of hernia have been wrongly grouped and inducted for general military service; in fact, just what the quality of work has been in every branch of examination, as well as the degree of care exercised in reviewing Form 1010.  
There is being compiled in the Medical Division, a list of examiners pertaining to every board in the United States, so that the name of each examiner will be filed with the record of the work done by him. This is not a dead, unused file. To improve the character of the work of all boards these records are being analyzed, to indicate to medical aides just what the failings are in their states. Medical aides are expected to promulgate this information to all concerned.  
Examining physicians are urged to invoke the assistance of the medical aide in resolving all doubtful points as to physical standards, in securing substi-

*The Annual Dues  
of \$5<sup>00</sup> for 1919  
are now payable*

PLEASE send your check  
for this amount plus the  
dues of your local society *at  
once* to the *secretary* of your  
*county medical society.*  
Do not become delinquent. To do  
so means loss of medico-legal protec-  
tion.  
*Pay your dues early*

tutes or additional examiners where necessary, and in other contingencies which may arise in connection with the medical problems of the draft.

By attention to the following points, the percentage of rejections may be markedly reduced in each local board.

### SOCIETY PROCEEDINGS

Cherokee County Medical Society met in regular session, Tuesday evening, September 24.

The Plymouth County Medical Society met in Le Mars, December 3 at which time the officers for the year were elected, namely: President, M. J. Joynt, Le Mars; vice-president, Fred Vernon, Merrill; secretary-treasurer, W. J. Brunner, Akron; delegates, A. H. Jastram, Remsen, and J. M. Fettes, Le Mars.

The dentists of the county were the guests of the society at this meeting. L. J. Conger, D.D.S. of Akron read a paper on The Relation of the Dental to the Medical Profession. A general discussion on Intrathoracic Tumors and Spanish Influenza followed.

W. J. B.

Polk County Medical Society met at the Chamberlain Hotel, November 26, 1918. Dr. L. Schooler in the chair.

Program—The Present Epidemic of Influenza, Walter L. Bierring, M.D.; Case of Tumor, Pons Varoli, Tom B. Throckmorton, M.D.

That the organism causing Spanish influenza is yet undiscovered and that there is no specific remedy were points brought out by Dr. Walter L. Bierring in his paper discussing the "flu" presented last night at the monthly meeting of the Polk County Medical Association at the Chamberlain Hotel.

Dr. Bierring recently returned from Fort Oglethorpe, Ga., and several other of the Eastern camps and cities which he visited in connection with his duties as a member of the national examining board. His paper was a thorough treatise on the subject of influenza as evidenced in the recent epidemic, dealing with it from pathological, bacteriological and remedial standpoints.

He stated that the course of treatment throughout the country has been practically uniform, treating it from the beginning as a type or degree of pneumonia. Patients have been kept warm and quiet with administration of anodynes to promote perspiration and giving of laxatives. He called attention to the fact that it is essentially a respiratory infection, with the greatest strain on the heart with necessity for sustaining circulation.

Because of the respiratory nature of the disease he recommended the use of the mask, because, he said, there is greater danger from contact than from the wind or air. Failure of the mask to ward off the disease, he said, has been due to the fact that the eyes were uncovered and organisms breeding "flu" entered the system by way of the tear ducts. He declared that the epidemic has been beneficial in that

it has brought the people to realize the advantage of restrictions as a health safeguard, and the possibilities of warding off disease by simple methods.

Dr. Bierring's talk was followed by open discussion in which Dr. Witte of the United States public health service said that the increase in number of influenza cases did not indicate a recurrence of the epidemic following the lifting of the quarantine, but was probably due to the fact that physicians neglected making out reports for several days until specially requested to do so.

The annual meeting of the Pottawattamie County Medical Society was held at Council Bluffs, December 10, and considering that all physicians are very busy in connection with the influenza epidemic, there was a very large attendance and an enthusiastic meeting.

Officers elected for the ensuing year are as follows: President, Rose H. Rice, Council Bluffs; vice-president, C. F. Baumeister, Avoca; secretary-treasurer, G. C. Giles, Oakland; delegates, V. L. Treynor and A. O. Wyland.

Drs. V. L. Treynor and H. B. Jennings were appointed a committee to confer with the members of the legislature from this county and also with the legislative committee of the State Society to urge the state legislature to adopt more efficient health laws.

Our society is paying the 1919 dues of eighteen members in the service.

G. C. G.

A regular meeting of the Scott County Medical Society was held Tuesday evening, January 7, 1919, at 8:00 p. m. in the Public Library building. Officers for the year 1919 were elected as follows: Dr. R. P. Carney, president; Dr. T. D. Starbuck, vice-president; Dr. R. E. Jameson, secretary; Dr. S. G. Hands, treasurer.

Dues for the year 1919 are due January 1. All members are requested to pay their dues to Dr. S. G. Hands, treasurer of the Scott County Medical Society, 605 Putnam building, Davenport, Iowa. Dues are \$10, all members are in suspension if dues are not paid on or before February 1, 1919, and not entitled to any medico-legal protection while in suspension.

Dr. L. H. Kornder was elected to membership at the December meeting, Dr. Kornder has offices in the Davenport Savings Bank building. Practice—General medicine.

Drs. Stoecks, Middleton, Bawden, Cantwell and Allen, have returned from the service and are now located in the City of Davenport.

Dr. Wm. Stoecks has offices in the Davenport Savings Bank building. Practice—General medicine and surgery.

Dr. George Middleton has offices in the First National Bank building. Practice—General medicine and surgery.

Dr. George S. Bawden will open offices soon. Practice limited to genito-urinary diseases.

Dr. J. D. Cantwell has offices in the Putnam building. Practice—General medicine.

Dr. L. Allen has offices in the Central Office building. Practice—General medicine and surgery.

We have arranged with St. Lukes, Davenport and Mercy hospitals to place a bulletin board in each of these hospitals, where announcements of meetings and other subjects of interest will be posted each month. "Watch the bulletins for important announcements."

Doctor, you are requested to present a paper or clinical case to at least one meeting during the year 1919, it is up to you and I, not the other fellow to make our meetings successful and interesting.

Doctor, you are requested to try and secure at least one new member for the society during the year 1919. Ask the secretary for application blanks, members back in dues can be reinstated by paying back dues. Doctor, help us keep the home fires burning until our boys return.

Doctor, have you need for more "Rules to the Public?" Ask the secretary for them, as many as you can dispose of.

The doctors realized during our recent epidemic, the necessity of a united effort in order to get the public assistance, unite as one they did, with the result that in a few days by their united effort and all pulling together they secured the public assistance asked for. This was our first get together effort, and let's all pull together as one man in the future—United we stand, divided we fall.

R. E. J., Sec'y.

#### ORDERS TO OFFICERS OF THE MEDICAL CORPS, U. S. ARMY

To Camp Cody, New Mexico, from Hawaiian Department, Major A. V. Hennessy, Council Bluffs.

To Camp Wheeler, Ga., as orthopedic surgeon, and on completion to Boston, Mass., Harvard Graduate School of Medicine, for instruction from Fort Oglethorpe, Lieut. W. J. Fenton, Mystic.

To Fort Dupont, Del., from Fort Riley, Lieut. F. E. Simeral, Brooklyn.

To Fort H. C. Wright, N. Y., from Camp Grant, Capt. N. W. Johnson, Cedar Rapids.

To Mineola, N. Y., Hazelhurst Field, for instruction, from Rockefeller Institute, Capt. T. S. Gittins, Iowa City.

To Newport News, Va., from Camp Morrison, Lieut. F. L. Secoy, Sioux City.

To Rochester, Minn., Mayo Clinic, for instruction, and on completion to Camp Zachary Taylor, Ky., base hospital, for instruction, from Fort Riley, Capt. W. Ruml, Cedar Rapids.

To San Antonio, Texas, Kelly Field, as tuberculosis examiner from Camp Custer, Capt. L. L. Craven, East Peru.

To Sewanee, Tenn., University of the South, from Fort Oglethorpe, Capt. C. F. Smith, Des Moines.

To Washington, D. C., from Camp Dodge, Lieut.-Col. E. R. Rich.

To Ann Arbor, Mich., State Psychopathic Hospital for intensive training, Lieut. J. T. Slattery, Dunlap.

To Camp Dodge, Iowa, Lieut. J. W. Laird, Mount Pleasant. Base hospital for instruction Lieut. A. M. Moes, Dubuque.

To Camp Pike, Ark., Lieut. M. E. Kemp, Sigourney.

To Camp Travis, Texas, Base Hospital, for instruction, Capt. R. M. Waters, Sioux City.

To Fort Oglethorpe, Lieut. J. Maxwell, Gibson. For instruction, Capts. E. S. Hough, Sibley; G. S. Browning, Sioux City; Lieuts. S. W. Huston, Crawfordville; A. O. Wirsig, Iowa City; C. D. Mercer, West Union.

To Fort Riley, Capt. F. E. V. Shore, Des Moines. For instruction, Capts. W. A. Stoecks, Davenport; L. P. Rich, Fredericksburg; S. B. DePree, Sioux City; C. W. McLaughlin, Washington; Lieuts. F. P. Cauley, Anthea; J. H. Van Dyke, Cedar Falls; H. J. Patchin, Denmark; H. D. West, Des Moines; R. L. Feightner, Fort Madison; A. W. Lundvick, Gowrie; R. W. Stober, Greene; F. R. Cutler, Guttenberg; P. I. Dahl, Inwood.

To Boston, Mass., from Camp Custer, Capt. T. Lucast, Forest City.

To Camp Abraham Eustis, Va., from Camp Custer, Lieut. J. W. Myers, Sheldon.

To Camp Crane, Pa., Mobile hospital, from Fort Oglethorpe, Capt. R. B. Morden, Des Moines; Lieut. T. A. Burke, Mason City.

To Camp Jackson, S. C., from Camp Custer, Lieut. C. C. Bowie, Dedham.

To Camp Sevier, S. C., base hospital, for instruction, from Fort Oglethorpe, Lieut. C. E. Dakin, Mason City.

To Camp Sheridan, Ala., from Fort Oglethorpe, Capt. I. W. Traverse, Fort Madison.

To Camp Upton, N. Y., base hospital, from Fort Oglethorpe, Capt. C. W. Mehlop, Dubuque.

To Camp Wadsworth, S. C., base hospital, from Camp Bowie, Lieut. C. E. Magoun, Sioux City; from Camp Travis, Capt. G. W. Yavorsky, Belle Plaine.

To Camp Wheeler, Ga., as sanitary inspector, Capt. H. R. Reynolds, Clinton. Base hospital, from Camp Sheridan, Lieut. R. E. Parry, Scranton.

To Fort Des Moines, Iowa, from Walter Reed General Hospital, Capt. J. M. Kilbourne, Sioux City.

To Fort Oglethorpe, evacuation hospital, from Camp Cody, Lieut. J. E. Reeder, Sioux City. For instruction, Lieut. H. G. Moershel, Homestead.

To Fort Sheridan, Ill., base hospital, from Fort Riley, Lieut. J. R. Black, Jefferson.

To Rockefeller Institute for instruction, from New Haven, Lieut. W. H. Hombach, Remsen.

The following order has been revoked: To Camp Cody, N. M., from Hawaiian Department, Major A. V. Hennessy, Council Bluffs.

To Camp Cody, N. M., base hospital, from Fort Oglethorpe, Lieut. J. E. Reeder, Sioux City, Iowa.

To Camp Crane, Pa., from Hoboken, Lieut. M. O. Brush, Shenandoah.

To Camp Jackso, S. C., from Fort Oglethorpe, Capt. G. F. Harkness, Davenport.

To Fort Sheridan, Ill., from Camp Grant, Lieut. W. Corns, Montone.

To Fort Snelling, Minn., from Camp Crane, Capt. H. E. Meyer, Hampton, Lieut. J. H. Wolfe, Iowa City.

To Lakewood, N. J., for instruction, from Fort Oglethorpe, Lieut. A. C. Davis, Iowa City.

To Camp Crane, Pa., from Camp Dodge, Capt. C. S. James, Centerville. Base hospital, from Camp Logan, Lieut. C. H. Graening, Waverly. Evacuation hospital, from Camp Devens, Lieut. J. G. Clapsaddle, Burt.

To Camp Grant, Ill., base hospital, from Fort Oglethorpe, Capt. H. E. McCall, Clearfield.

To Camp Lee, Va., from May's Landing, N. J., Major G. R. Plummer, Cresco.

To Camp McClellan, Ala., from Fort Riley, Lieut. R. J. Matthews, Clarinda. Base hospital, from Fort Oglethorpe, Lieut. J. J. Beatty, Farragut.

To Camp Wadsworth, S. C., from Camp Greene, Lieut. G. H. Steele, Belmont.

To Camp Wheeler, Ga., base hospital, from Fort Oglethorpe, Lieut. C. O. Yenerich, Rockford.

To Camp Zachary Taylor, Ky., field hospital, from Fort Riley, Lieut. J. W. Sellards, Clarinda.

To Fort Ogelthorpe, evacuation hospital, from Camp Jackson, Capt. G. F. Harkness, Davenport.

To Iowa Falls, Iowa, Ellsworth College, from Camp Dodge, Lieut. C. A. Manahan, Marengo.

To Washington, D. C., for conference, and on completion to Detroit, Mich., from Fort Des Moines, Lieut.-Col. A. T. Cooper.

To Detroit, Mich., from Camp Crane, Lieut. W. W. Murphy, Lewis.

To Fort Des Moines, Iowa, from Fort Oglethorpe, Capt. F. R. Holbrook, Des Moines.

To Camp Travis, Texas, base hospital, from Camp Pike, Lieut. C. C. Lytle, Lansing.

To Camp Zachary Taylor, Ky., base hospital, from Nashville, Tenn., Capt. C. Aschenbrenner, Pella.

To Fort Benjamin Harrison, Ind., base hospital, from Fort Oglethorpe, Capt. T. B. Lacey, Glenwood.

To Fort Des Moines, Iowa, for instruction, from Fort Oglethorpe, Lieut. M. S. Corlett, Westgate.

To Fort Oglethorpe, base hospital, from Otisville, Capt. W. L. Hearst, Cedar Falls.

To Fort Snelling, Minn., from Camp Grant, Capt. E. J. Harnagel, Des Moines; Lieut. W. H. Redmond, Cedar Rapids.

To Lakewood, N. J., from Fort Oglethorpe, Lieut. J. O. Murphy, Eldon.

To Rockefeller Institute for instruction in the treatment of infected wounds, and on completion to Camp Meade, Md., base hospital, for instruction, from Fort Oglethorpe, Capt. L. Lambach, Davenport.

To Washington, D. C., Surgeon General's office, from Fort Riley, Major H. C. Parker, Dubuque.

## HONORABLE DISCHARGES AND RESIGNATIONS, MEDICAL CORPS, U. S. ARMY

J. B. Knipe, Armstrong, Iowa.

M. Lyon, DeWitt, Iowa.

W. H. Grimwood, Fort Madison, Iowa.

H. H. Hunt, Hazelton, Iowa.

H. A. White, Clinton, Iowa.

M. E. Kemp, Sigourney, Iowa.

**Supplement to list of Iowa physicians who have been recommended by the Surgeon General for commissions in the Medical Officer's Reserve Corps.**

Francis Patrick Cauley, 1st Lieut., Anthen.

Raymond William Stober, 1st Lieut., Charles City.

Samuel Wesley Huston, 1st Lieut., Crawfordsville.

Francis Edward Victor Shore, Capt., Des Moines.

Anthony Michael Loes, 1st Lieut., Dubuque.

Emil Gustav Grove, 1st Lieut., Fairfield.

Robert Lloyd Feightner, 1st Lieut., Fort Madison.

John Maxwell, 1st Lieut., Gibson.

Frank Ross Cutler, 1st Lieut., Guttenberg.

Peter I. Dahl, 1st Lieut., Inwood.

Arnold Oswald Wirsig, 1st Lieut., Iowa City.

Frank Sherman Hough, Capt., Sibley.

George Stillman Browning, Capt., Sioux City.

Ralph Milton Waters, Capt., Sioux City.

Charles William McLaughlin, Capt., Washington.

## MEDICAL NEWS NOTES

The Gate City refers to Dr. Woods Hutchinson as "a physician who appears to think that he has superintendence of the health of the people of the United States" gave the city council of Los Angeles a warm hour in relation to an ordinance to make compulsory the wearing of masks during the prevalence of influenza. The council refused to consider the matter.

The Henry and Catherine L. Hand Hospital at Shenandoah was formally opened November 22, with Mrs. Flora Riggs as superintendent, formerly connected with the State Hospital at Independence.

Authorization for remodeling of buildings at Fort Des Moines and the construction of several additional buildings, which will increase the capacity of the institution by at least one-third, has been received by Major I. P. Shelby, constructing quartermaster. Twelve large buildings, it is said are to be remodeled, ten as wards for patients and two as general mess halls. A half dozen additional nurses quarters are to be constructed with four wards for mentally deficient patients. The additional wards will bring the total maximum capacity of the hospital up to about 2,000 patients.

Three women surgeons from New York, Drs. Caroline S. Findley, Anna I. VonSholly and Mary Lee Edward, have been decorated by the French government and commissioned lieutenants in the French Army. The commissions and decorations were given for excellent surgical work and treatment

of the wounded during heavy bombardment in a hospital near the French front.

Plans are being perfected for the reorganization of the regular army. The president has authority to discharge both men and officers from the army as may be deemed expedient. Just what will be done will depend upon the number of troops required to police the conquered nations and restore law and order there and in Russia. The enlistments in the army have been for the period of the emergency, not for the duration of the war, consequently the president can retain men in active service so long as he deems it necessary, even after the final confirmation of the peace treaty.

Dr. M. O. Brush of Shenandoah, has been assigned to the Rockefeller institute in New York City for special work.

Major Tom Joyce of Fort Dodge has been made first assistant to Dr. Harvey Cushing in brain surgery.

Lieutenant-Colonel D. S. Fairchild, Jr., chief surgeon Forty-second Division (Rainbow) has been made full colonel. Cable December 8.

Overseas orders have been received by Dr. A. W. Dunlap, recently commissioned a captain in the medical corps and now stationed at Fort Oglethorpe, Ga.

Dr. and Mrs. A. Babcock received a cablegram last Wednesday from Admiral Sims, on whose staff their son, Commander J. V. Babcock, has served during the war. The cablegram awaited them here on their return from South Dakota, and was worded as follows: "Oct. 11, 1918. 'Babby and I join in rejoicing with you and all your family.' Signed, Sims."

Dr. P. McDermid has been confined to his rooms by illness for the past two weeks, but was sufficiently improved Saturday to be taken to a Des Moines hospital for treatment.

Eleanor Hutchinson, M.D., has located in Newton for the practice of medicine, having her office and home in the late Dr. C. E. Boyd residence, recently occupied by Dr. F. L. Smith. Dr. Hutchinson is a graduate of Drake University School of Medicine and comes here after having practiced in Des Moines for several years.

Dr. H. E. Meyer of the Hampton Clinic, who joined the colors several weeks ago, was commissioned a captain in the medical corps of the army and left here for Camp Greenleaf, Ga., has been selected by the commanding officer at Camp Greenleaf for duty on foreign soil and left there last Thursday for Hoboken, N. J., the point of embarkation.

A cablegram received yesterday at Council Bluffs by Robert B. Wallace from John D. Long, Jr., of Unit K, Mobile hospital No. 1, announced that Dr. Donald Macrae of Council Bluffs had been promoted to the full rank of colonel, raising him from major, and giving him the highest official position under the rules of the service. It is understood that the promotion was made very soon after Lieutenant-Colonel Tinley's rank was raised to colonel.

Dr. Earl Thomas of Keystone has been having a severe attack of influenza.

Dr. Dwight Smith who was commissioned as a lieutenant in the medical corps of the army during the summer, has been sent to the Philippines.

Dr. Thomas J. Heldt, doing medical work in the army in France, has just been made major, according to a cablegram received by his wife. Dr. Heldt is in charge of nervous and mental diseases at a base hospital according to the best information obtainable.

Dr. Chapin Huntington, who is in the city visiting his many relatives, was born in Des Moines, and is the son of C. W. Huntington the well known railroad manager, for many years a resident of Des Moines, and during recent years general manager of an Eastern railway. Dr. Huntington is a young man of fine education, and has had wide experience, including two years with the Russian embassy at Petrograd. Dr. Huntington, on account of his splendid information, will be employed at Washington as an advisor to business men in the future. His intense search after knowledge has made him an investigator in many fields, and such investigations have resulted in giving him a rare intellectual equipment.

Robert Morton, familiarly known as "Ted," a son of Dr. W. M. Morton, pioneer physician of Iowa Falls, who is now a resident of California, has arrived in this country from overseas where he has been wounded in the service.

Lieutenant Eugene McCaffery was seriously gassed shortly before the close of fighting at the American front, while rendering medical aid to wounded soldiers.

Dr. John E. Russ, formerly of Iowa Falls has located in Ellsworth.

Captain J. W. Walker of Dubuque has been seriously ill at the base hospital at Fort Riley for several weeks with influenza, has now recovered.

Dr. D. F. Fitzpatrick has been appointed local surgeon for the Rock Island Railway Company at Iowa City.

Dr. E. C. Heilman of Ida Grove was recently stricken with hemiplegia.

Dr. W. D. McFaul of Miles, arrived in France August 23.

Dr. J. T. Priestley, who has been in a hospital at Rochester, Minn., for several weeks, returned to Des Moines recently.

Dr. George E. Keller, formerly of Iowa City and Iowa University, Class of 1910, College of Medicine, has been stationed at Pelham Bay Park, New York City (Naval Training Camp). He enlisted in May, 1918, and received his commission as a first lieutenant, in June. He was summoned to New York, for naval coast duty, October 6.

Capt. John M. Griffin formerly of Albia, now of Chicago, who has been at Camp Greenleaf, has been mustered out, subject to call.

Capt. John Chase Dennison of Bellevue who has been in the service at Camp Sevier has returned to his practice in Bellevue, having been mustered out.

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Physicians may rely on the quality of anything advertised in this Journal.

### TRADEMARKS OF SUPERIORITY

#### "Made in the U. S. A." "Advertised in the Journal of The Iowa State Medical Society"

The world's war has so moulded public opinion that the stamp "Made in the U. S. A." will endure forever. But goods so stamped must be brought to the attention of the public in order to gain the benefit from such a trademark; and here again, public opinion is moulding the policy of the various advertising media throughout the country. Honest goods and honest advertising make a combination impossible to beat. Advertisers are not afraid to advertise honest goods, but in selecting the media for displaying the virtue of such goods, great care and discernment must be used by both individual and firms if the best returns are to be expected.

Acting on the principle of honest advertising, which we believe to be absolutely the best and most reliable, the advertising policy of the Journal of the Iowa State Medical Society was made some years ago to conform to the standard pursued by the Advertising Department of the Journal of the American Medical Association. That the change was a wise one has been substantially proven many times by the increased confidence given the Advertising Section of the Journal by both readers as well as by those using space in its columns. In other words, a mutual and hearty cooperation has sprung up between two sets of individuals through the use of a common medium.

That the Journal may still continue to merit this confidence expressed by the advertisers who use its pages from month to month, it is necessary that "deeds and not words alone" must be expressed by the nearly twenty-three hundred readers who receive this Journal into their homes and offices every month. To this end, attention is again called to the absolute reliability of anything advertised in the Journal. It is, therefore, not so much a request as it is an appeal to "common sense" and "good judgment" that you, dear reader, should endeavor to use, whenever possible, such things as are advertised in the Journal of the Iowa State Medical Society. The success of the Journal, financially, depends absolutely upon the degree of cooperation between reader and advertisers. Everyone realizes that well advertised goods are silent salesmen. Our advertisers realize this but do **you** ever stop to think how nice it would read to state in your order, "I saw your announcement in the Journal of the Iowa State Medical Society." Just try it. To do so, will accomplish three things—insure your protection, please the advertiser, and benefit the Journal.

TOM B. THROCKMORTON,  
Business Manager.

### DEATHS

Mrs. Frank Cavey of New London has received the news of the death of her youngest brother, Dr. C. A. Ross, on Saturday afternoon, October 19, at

Camp Dodge, from pneumonia, following influenza. He was twenty-eight years of age, and his home was in Montana.

He came to Camp Dodge last July. He had only recently received a promotion, and was soon to have gone to Camp Greenleaf. His brother Robert Ross, was with him when he died and with the body started to Hardin, Montana, Sunday afternoon. Interment will be made in the national cemetery, on the Custer battlefield, beside his soldier father.

Dr. Albert Roy Richey was born in Fremont township, Johnson County, Iowa, December 28, 1879, died in Herreid, South Dakota, October 16, 1918; age thirty-eight years, nine months, eighteen days.

He was married December 24, 1905, to Miss Dolorosa Everett, at Iowa City. He lived to young manhood on the farm in Fremont township, graduating from the high school in Lone Tree, June, 1902. Later he attended medical school at S. U. I. where he graduated taking his degree in June, 1905.

He practiced his profession in Iowa a short time, then moved to South Dakota where he was living at the time of his death.

Dr. Bower, a brother of Dr. John Bower, and who practiced medicine at Arlington for a number of years, is dead at his home in Colorado, where he went a couple of years ago in the interest of his health. He was a victim of influenza.

The funeral of Dr. C. P. Forward of Dubuque was attended by the Dubuque County Medical Society in a body. The casket bearers selected from the medical society were Drs. A. H. Blocklinger, John Hancock, C. C. Fritschel, H. H. Palas, A. M. Loes, and W. Q. Becker.

Dr. Ed Embree, a practicing physician in Winterest for more than thirty years, died of Bright's disease.

Word has been received here of the death of Dr. Leo K. Oren, who was a surgeon in the United States Army in France. His death occurred October 9. He was a former Benton county boy having spent his childhood in Mt. Auburn where his father, Dr. S. A. Oren was a practicing physician. He was a grandson of Jesse K. Oren, a pioneer doctor and surgeon of Blackhawk and Benton counties. Before he entered the service he was associated with his father in the practice of medicine at Lewistown, Illinois.

Dr. James E. Moore of Minneapolis, one of the last of the original members of the medical faculty of the University of Minnesota, died on November 2 of pernicious anemia.

Dr. Moore graduated from Bellevue Hospital Medical College in 1873. After graduation, spent three years study in Berlin and London. Came to Minneapolis in 1883, became a member of the university

faculty and at the time of his death was at the head of Department of Surgery.

John George Mueller, M.D., aged forty-eight; State University of Iowa; College of Medicine, 1895; Fellow of the American Medical Association; member of Iowa State and Johnson County Medical Societies; practicing physician for several years in his native town, Iowa City; died at his home, October 17 from influenza.

Lynn L. Lorenz, M.D., aged forty; University of Illinois College of Medicine, 1912; member of Iowa State and Floyd County Medical Societies; formerly of Charles City, recently removing to Rockford; died at his home in Rockford December 1, from influenza.

Robert Z. Ingersoll, M.D., aged forty-one; Keokuk Medical College, 1910; a member of the Iowa State and Wayne County Medical Societies; a practicing physician at Seymour, died at his home October 22 from pneumonia, following influenza.

### MARRIAGES

Lieutenant G. S. Westly, formerly of Manly, to Miss Beatrice Cross. A military wedding.

Captain Solon Mitchell Langworthy of Cedar Rapids, attached to the United States Medical Corps, was recently married in Paris to Miss Madeline Thomas of New York. Miss Thomas was engaged in Red Cross work in Paris.

Miss Kathryne McGovern and Lieutenant Frank M. Cannon, M.D., U. S. N. R. F., were married at Great Lakes Naval Training Station, October 30.

### CHANGES OF LOCATION

Dr. R. A. Gamble of Atlantic has removed to Madrid.

Dr. T. J. Dorsey of Clare has located in Fort Dodge.

Dr. P. G. Grimm of Massena has purchased the practice of Dr. J. D. Geissinger of Spirit Lake.

### BOOK REVIEWS

#### MILITARY HYGIENE AND SANITATION

Frank R. Keefer, M.D., Colonel Medical Corps, United States Army. Formerly Professor of Military Hygiene United States Military Academy, West Point. Second Edition Reset, 12 Mo. of 340 Pages, Illustrated. W. B. Saunders Company 1918; Philadelphia and London. Cloth \$1.75.

The first edition appeared in 1914 at the breaking out of the world war. It contained an outline in the principles of military hygiene then. Now, after four years of war, it is to be stated that certain conditions of war appeared not dreamed of then, which

demand important additions and also many improvements in methods of employing hygienic measures, in caring for great armies of men.

Military discipline must be one of things of the future, even if no wars occur. Military discipline is necessary for the welfare of the young men of the nation in very many ways, even if only to demonstrate under proper direction the importance of health regulations. If we were to fall back into the routine of gaining a living only, how long would it be when we should disregard what we have learned under military exigency. We must train armies, we must have trained military sanitarians, we must have books like the one before us. Because of the talk of no more wars we should not lay aside what we have learned in military camps, or what we have learned as to what constitute sound and efficient men.

#### THE ORTHOPEDIC TREATMENT OF GUN-SHOT INJURIES

Leo Mayer, M.D., Instructor in Orthopedic Surgery, New York Post-Graduate Medical School and Hospital, with an Introduction by Col. E. G. Brackett, M.C., N.A., Director of Military Orthopedic Surgery. 12 Mo. of 250 Pages with 184 Illustrations. W. B. Saunders Company, 1918. Philadelphia and London. Cloth \$2.50 Net.

This is primarily a book on war surgery but includes much that has a direct relation to industrial or traumatic surgery. For some time after the close of active war work there will be a period of reconstruction work which will involve the restoration of victims of war to the best possible conditions for civil life. There will always be the treatment of injuries of bones, joints and soft tissues, incident to the industries and traumatic conditions due to accidents generally.

The first chapter relates to injuries of bones and joints including transportation and the application of principles of treatment in restoring the parts to as near the normal as possible, not injuries alone inflicted by instruments of war but by any means whatsoever, including observations on injuries to nerves, muscles, tendons, etc.

A portion of the book relates to amputations and the construction and application of artificial limbs, a subject but little considered by general surgeons before the experiences of the war has so thoroughly emphasized the necessity of restoring men to a condition of self respecting support. Considerable space is devoted to nerve and tendon restoration and transplantation.

The title of the book would suggest the idea that it was intended almost exclusively for the use of military surgeons, but as a matter of fact the general surgeon, especially if doing industrial surgery will find it equally fitted to his work.

The mechanical work including illustrations represents the highest art of book making.

The annual report of the Surgeon General, U. S. Army, for 1918, (including statistics for the calendar year 1917 and activities for the fiscal year ending June 30, 1918), has just been issued from the government printing office. It contains a comparative study of the health of the Army, 1820-1917; an account of the health of the mobilization camps and of the Army by countries; a consideration (seventy pages in extent) of the principal epidemics in the camps; and a discussion of fractures and operations. Nearly 200 pages are devoted to the special activities of the medical department—with the American Expeditionary Forces, and in the divisions of sanitation, hospitals, supplies, laboratories and infectious diseases, internal medicine, general surgery, orthopedics, head surgery, neurology and psychiatry, psychology, food and the Dental and Veterinary Corps. In addition to the usual tables of illness, discharge for disability and death, there are given tables of battle wounds and operations; or complications of various diseases and of case mortality. The text is illustrated by seventy-three charts. Altogether the report is a study of health and morbidity in an Army of over 1,500,000 men, for the most part yet in the period of training. It should be of interest to epidemiologists, vital statisticians and army medical men.

#### SURGICAL TREATMENT

A Practical Treatise on the Therapy of Surgical Diseases for the use of Practitioners and Students of Surgery. James Peter Warbasse, M.D., Formerly Attending Surgeon to the Methodist Episcopal Hospital, Brooklyn, New York. In Three Large Octavo Volumes, and Separate Desk Index Volume. Volume One Contains 947 Pages with 699 Illustrations. W. B. Saunders Company, 1918. Philadelphia and London. Per Set, Three Volumes and Index Volume \$30.

Dr. Warbasse is well known to the medical profession as an active contributor to medical literature, particularly in the field of surgery. With an abundance of material at hand, he now presents to the profession a three volume treatise on the science and practice of surgery. We are informed in the preface that the work is the product of a single writer. This fact in book making is of considerable importance in that the responsibility is placed fully on the author whose name appears on the title page and that overlapping of subjects and discussions are thereby avoided. The first volume, now before us, bears evidence of a well organized plan of arrangement, by which the science and art of surgery is presented in an orderly and logical manner. In the beginning, under the head of general principles, we are informed that surgical treatment is the oldest branch of surgery, long before there was any knowledge of surgical pathology or a science of surgery. After a brief consideration of general principles, comes asepsis and antisepsis; the selection and preparation

of material used in surgery. Then a section on anesthesia and anesthetics. This is always an important chapter in surgery. Fundamental, in fact, as it requires a nice discrimination as to method and indications to render surgery safe and successful.

Under the head of wounds is a consideration of operating room organization, personnel, technic, preparation of material, suturing and the conditions necessary to secure aseptic conditions and prompt healing. Inflammation and its salutary effects in infections is pointed out particularly in relation to the destruction of organisms that are not accessible and places considerable stress on rest and inducing of artificial hyperemia.

Under the head of Surgical Fevers and Infections the value of vaccines, serums, and antitoxins are considered. It is pointed out that with increase of knowledge and experience surgeons are able to employ protection and immunizing inoculations as this appears to be the hoped for aid in certain conditions.

The section on Blood and Blood-vessels is especially valuable and contains much that has been recently worked out in relation to transfusion, not so much as a remedy in the treatment of certain diseases, but as a means of saving life in hemorrhage or surgical anemia. The technic of transfusion is here presented in a helpful manner by text and illustrations. The surgery of blood-vessels including suturing of vessels anastomosis and the treatment of aneurism occupies considerable space and includes the late modifications after the method of Matas. Even the technic of phlebotomy has not been overlooked.

The chapter on the Treatment of Fractures is to be highly commended on account of its practical character. The subject from every standpoint is treated in a direct and helpful manner. The author is conservative in regard to operative treatment of fracture and would reserve for operative treatment only those cases which could not be successfully treated by other means. The operating methods recently employed are set forth. Considerable attention is given to compound fractures.

The chapter on dislocations presents the usual facts in relation to this condition.

The chapter on diseases of the joints and operations on bones and joints is worthy of careful study. On the subject of sprain of joints, the author refrains from warning the practitioners of the possibility of complications which should be inquired into by x-ray examinations. The treatment of uncomplicated sprains is to be commended. The treatment of wounds of joints has received a new impetus since the beginning of the recent European war and an extensive literature has accumulated which the author outlines in treating this subject.

The closing chapter is on surgery of the nerves. This volume may be said to deal largely with traumatic surgery and includes much that has been modified in relation to traumatic conditions since the war came upon us and is opportune in the time of its appearance.

## ESSENTIALS OF DIETETICS

A Text-book for Nurses, by Maude A. Perry, B.S., Formerly Dietitian and Instructor in Dietetics at Michael Reese Hospital, Chicago. Corresponding Secretary of the American Dietetic Association, Red Cross Dietitian for Base Hospital Unit No. 14. C. V. Mosby Company, 1918, St. Louis, Mo.

This is a comprehension text-book for student nurses and to be used by them in their work after graduation. The importance of a proper diet in the treatment of disease is now well established and nurses not familiar with modern ideas in relation to dietetics will fall far short of present requirements. The book is attractively written and easily followed.

## A MANUAL OF OTOTOLOGY

Gorham Bacon, A.B., M.D., F.A.C.S., Formerly Professor of Otology in the Columbia University, New York. Aural Surgeon New York Eye and Ear Infirmary. Assisted by Truman Lawrence Saunders, A.B., M.D., Assistant Professor of Laryngology and Otology, Columbia University, New York. Aural Surgeon New York Eye and Ear Infirmary, etc. Seventh Edition, Revised and Enlarged with 204 Illustrations and 2 Plates. Lea and Febiger, 1918. New York and Philadelphia.

This book is designed for the use of students and general practitioners. That the book has served the purpose is shown by the fact that the volume before us has passed through seven editions. In addition to a thorough revision some forty pages of new matter has been added. In the larger towns it is the custom for practitioners to refer ear, nose and throat patients to the specialist, but in smaller communities, the physician is obliged to give some attention to these cases himself and in this book will be found a useful guide. The student of medicine will find it helpful in following his clinical and didactic work for which the book is especially designed.

## A TEXT-BOOK OF PHYSIOLOGY FOR NURSES

William Gay Christian, M.D., Professor of Anatomy, Medical College of Virginia and Charles C. Haskell, A.M., M.D., Professor of Physiology and Pharmacology, Medical College of Virginia. Illustrated. C. V. Mosby Company, 1918. St. Louis, Mo. Price \$1.75.

The author has prepared a book well adapted to the needs of nurses in training. It may be assumed without question that before a nurse is properly fitted for her work, she must be more or less familiar with the functions of the human body. To meet this requirement, Professor Christian has compiled an elementary text-book with illustrations which gives an outline of what a nurse should know.

The first chapters consider the physiology of circulation and respiration followed by a longer chapter on food and digestion. Then comes the liver, spleen, kidneys, ductless glands, skin, nervous system, organs of special senses and a short but excellent discussion on chemico-physiology.

## GYNECOLOGY

William P. Graves, M.D., Professor of Gynecology at Harvard Medical School. Second Edition. Thoroughly Revised, Octavo Volume of 883 Pages with 490 Original Illustrations, 100 of Them in Colors. W. B. Saunders Company, 1918. Philadelphia and London. Cloth \$7.75 Net.

This excellent work has been revised and enlarged within the period of two years, not only revised, but more than 100 pages added.

After a brief consideration of the physiology of the uterus and ovaries, comes a most interesting study of the relationship of Gynecology to the General Organism; a discussion which particularly distinguishes this book from others of its kind. First as to the glands of internal secretion. The text of this section is as follows: "The essential glands of internal secretion may be defined as ductless structures, which by the agency of certain cellular elements manufacture chemical substances, called hormones that are absorbed directly into the blood circulation and by this means are enabled to influence the functions of other organs." It is stated that a deficient activity, a lessened function, and over activity an increased function. Therefore the relation between glands of internal secretion and gynecology, ovarian activity, ovulation and menstruation. Then follows organotherapy as a logical sequence. The relationship of the several glands of internal secretion follows. The hypophysis, thyroid, parathyroids, suprarenal system, the thymus and uterus, pineal gland. Then comes the relationship of gynecology to several other classes of organs and systems. Mammary gland, respiration, circulation, blood, etc. This seems to the writer a most interesting and logic presentation of part one—gynecology.

Part two brings us to gynecologic diseases which includes a general consideration of the diseases with which the gynecologist has to deal, illustrated by numerous drawings. The description of conditions and symptoms are clear and the treatment prescribed of the most approved character.

Part three; operative gynecology is a beautiful illustration of surgical, literary and book making art. The author presents the most approved operative methods of reparative work crediting different workers with methods which in his opinion are most useful.

We cannot say too much in praise of this book which represents the best surgical technic and in all that relates to gynecologic practice. The publishers are entitled to the highest commendation for the character of the mechanical work, the type, paper,

the production of the half tones, drawings, and the illustrations generally.

### SURGICAL AND WAR NURSING

A. H. Barkley, M.D., (Honorable) M.C., F.A.C.S. Lecturer at Good Samaritan Hospital Training School for Nurses; Consulting Surgeon, Good Samaritan Hospital, Lexington, Ky. With 79 Illustrations. C. V. Mosby Company, 1918. Price \$1.75.

This book contains many useful things that will be helpful to the surgical nurse. First; the physical qualifications for a nurse and what may be expected of her. Bandages, how made and how applied. Instruments, their names and general use. Sterilization, medicines and solutions. Then matters in relation to patients; temperature, pulse, respiration and blood-pressure. Conditions to be considered before operation and after operation, connected with complications that may lead to anxiety and danger. Brief chapters on enemas, douches and catheterization, urine and blood. The application of cold, heat, lotions and counter irritants. Chapters on preparation of patient for examination, operating room and duties of nurses. Post-operative care of patients; which is said to begin when the "operation has been completed and the patient removed to her room and placed in bed." Considerable space is given this part of the nurses' work including special cases. A chapter is devoted to what nurses should know about anesthetics. What the nurse should do in relation to first aid in accident cases. Three chapters are given to war nursing which has become an important function of the nurse in the past few years.

### THE HOSPITAL AS A SOCIAL AGENT IN THE COMMUNITY

Lucy C. Catlin, R.M., Director of Social Service Work and Executive Director of the Out-Patient Department of Youngstown Hospital, Ohio. 12 mo. of 113 Pages, Illustrated. W. B. Saunders Company, 1918. Philadelphia and London, \$1.25 Net.

Miss Catlin has taken up the subject of hospitals from the right point of view. When we take up a subject of this kind we look for a beautiful discussion from the standpoint of a "noble charity." We know of hospitals managed as a charity and the inmates are reminded that they are the beneficiaries of charity. Such hospitals are generally badly managed by persons who complacently congratulate themselves that they are doing a charity. Miss Catlin however considers the hospital as a part of a social work and incidental to the service social workers are doing. This is as it should be. Generously inclined persons or communities may erect and maintain hospitals for social service. Welfare workers hope to assist the unfortunate by using hospital service as a part of their plan of helpfulness in restoring individuals to usefulness. Hospitals are often

constructed by industries for the care of their employes as a sound business proposition. Private individuals build or organize hospitals for convenience and profit. Social workers use hospitals built for general purposes in ways set forth in this interesting little book not as charities but as incidental to a larger purpose. When it is understood that hospitals are not charities but incidental to general welfare which the inmate has a right to enjoy as a member of the community for a definite purpose, the true function of a hospital will be appreciated.

### NURSING IN DISEASES OF CHILDREN

Carl G. Leo Wolf, M.D., Chief of Clinic for Sick Babies and Children of the City of Buffalo, N. Y., Instructor in Pediatrics, University of Buffalo, Medical Department. With 72 Illustrations. C. V. Mosby Company, 1918. St. Louis, Mo. Price \$2.50.

This useful book is intended for nurses in the management of infants. An important part is devoted to physiology and general considerations in which is brought forward certain facts the nurse should know of a physiological nature in relation to infants. Then comes clothing and feeding of infants and children. A chapter is devoted to disturbances of nutrition which nurses should particularly understand. It is suggested that the diagnosis of disease should be left to the physician, but an important section is devoted to the management of disease under the general direction of the physician who has the patient in charge. It also follows that the nurse will have certain cases under her care where no physician is employed and it falls to her to discover conditions in which a physician's advice should be secured. This book will be interesting and helpful to the nurse doing general work among infants and children.

### A TEXT-BOOK OF HOME NURSING

Modern Scientific Methods for the Care of the Sick. By Eveleen Harrison. Second Edition. The Macmillan Company. Price, \$1.10.

In the 187 pages of this book of "Home Nursing," the author has given in a very comprehensive way the latest in the science of nursing. The questions of diet; invalid cooking; out-door treatment; emergencies; care of sick children; baths; contagious diseases; disinfection, etc., form a part of the subject matter. This little text-book will be found to be of much service in many homes, so clearly and concisely is the subject presented.

### THE HUMAN SKELETON—AN INTERPRETATION

Herbert Eugene Walter, Associate Professor of Biology, Brown University; 175 Illustrations. The Macmillan Company. Price, \$1.75.

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## GYNECOLOGY AND WAR\*

EMIL RIES, M.D., Chicago

I am trying to do my duty at the present time by taking care of that part of the population which cannot go to war. Somebody has to take care of the base lines, and the women are constituting a very essential part of the base lines. Besides, the work of the gynecologist will become much more exacting, will be in greater demand than ever, by the time our victorious troops return home. By that time we will have an enemy within our lines by the tens of thousands in the guise of the gonococcus carriers who return home and may scatter the disease. The hundreds in camps in one week and the hundreds again the next week and some hundreds the week after that, show the percentage of those infected mounting up and up, and by the time the millions drafted have been in the war a year or more the percentage of those who have been infected once and are possibly infected in the end is very considerable.

The gonococcus is the most dangerous of animals for the female sex to acquire. Syphilis as compared with gonorrhea is a harmless disease as far as the female sexual tract is concerned. There is no syphilis of the uterus, the tubes or the ovaries, there is not a single reliable report of a truly syphilitic disease of the uterus, tubes or ovaries, and we are trying as hard as we can to eradicate syphilis and cure it. And we are, comparatively speaking, more successful at that than we are at curing gonorrhea of the female sex. The gynecologist who wants to protect the female sexual tract has much harder work with gonorrhea than with syphilis. He does not have to protect the uterus from syphilis because there is no syphilis of the uterus; but he has to protect the uterus from gonorrhea, and the tubes and the peritoneum. With possibly hundreds of soldiers acquiring gonorrhea every week, we have to remember that gonorrhea is a disease which lasts from twenty days to twenty years, and the fact

that men are discharged from the hospitals does not mean that they are clean. As they come back and return to their family relations a considerable proportion of them will bring gonococci home in their seminal vesicles and prostates. Then several problems will confront us. First, it is extremely difficult, practically impossible, to determine absolutely that a case of gonorrhea has been cured. So you cannot pick out the man of whom you will say—he is cured. The man who has had gonorrhea, especially if it has become chronic and remained so for any length of time, is a very uncertain proposition. Second, unfortunately the one sure preventive of gonorrheal infection is practically prohibited by law, and we are standing before the awkward proposition that our government is recognizing the chance of a man acquiring gonorrhea by teaching him how to prevent infection; but it will not allow him to do afterwards what he can do to prevent his wife's infection. There is an absolutely sure preventive of gonorrheal infection from man to woman. Gonorrhea is acquired practically in one way only, syphilis in a dozen ways. That one way in which gonorrhea is acquired can be made harmless by a very simple mechanical arrangement, and the government practically prohibits that. By the time we all know and understand about that, perhaps we can change the governmental regulations relative thereto.

Thirdly, once gonorrhea has invaded it, the female sexual tract is damaged in two ways important for the welfare of the nation: First of all, as far as propagation is concerned gonorrhea is the most frequent source of sterility, and, secondly, by producing chronic and recurrent attacks of sickness, gonorrhea depresses the efficiency and working ability of the woman affected. Both of these conditions are of the utmost importance for the future of the nation. A woman who cannot have a child cannot completely fulfill her duty to the nation; but a woman who is laid up every little while with a fresh attack of pyosalpinx or salpingitis or peritonitis, cannot fulfill her duty completely either, because she cannot work as she ought to. Therefore personal prophylaxis is of

\*Address, Iowa State Medical Society, Fort Dodge, Iowa, Sixty-Seventh Annual Session, May 9, 10, 11, 1918.

the utmost importance, especially since we gynecologists are such poor therapeutists that the best we can do for a woman gonorrheally infected is to mutilate her on top of her infection. There is no way to cure gonorrhea in the internal female sexual tract. It heals sometimes, but we do not cure it. It heals in the same way in which a typhoid fever heals—we do not cure it. Once the organs have undergone the changes incident to peritonitic involvement, the best that can happen is that the infection dies out gradually, but at that the woman is left with damaged organs, and only in a very limited number of cases can gynecological surgery do something to restore those organs to normal function, including childbearing.

I am speaking of the plastic operations on the tubes, and I wish to mention especially that in my hands plastic operations on the tubes in cases where the infection was due to the gonococcus were infinitely less successful than in cases where the infection was due to some puerperal infection with the ordinary pus germs. Tubes closed by gonorrhea, even if opened up, in my experience have never carried an ovum to fertilization, whereas in a number of cases in which the tubes were closed by puerperal infection, an operation to open up the tubes by laparotomy and a plastic of the tubal end has allowed conception to take place even repeatedly.

These are the problems that will particularly concern the army when it comes back. The army that stays at home is concerned with additional problems. The women of this nation will have to do a lot of work and many kinds of work that previously was done by men, and it is to the greatest interest of the nation that the women be kept at the highest standard of efficiency. The women of this nation always have shown the greatest adaptability, and they have carried out their work successfully and to their glory. We ought to do everything possible to enable them to continue along these lines of progress. We have to consider from this viewpoint the diseases which are peculiar to their organs and have been disabling them.

I am not speaking now of fibroids or carcinomata, but of those injuries incident to the main business of women, childbearing. Those injuries leading to a prolapsed condition have been treated in a rather slighting way for a long time. It is surprising to me what insignificant and inefficient operations are commonly done for those conditions of prolapse which really disable a woman. We men have no conception of how it must feel to have something hanging down and bearing down all the time when one is at work, with the exception of those men who have had a

big tumor of hemorrhoids which has been disturbing them. If you have ever talked with a man suffering from hemorrhoids hanging out, you will understand why that man is half efficient, why he is hugging a chair all the time. And it is the same in the case of a woman with prolapse. I sometimes see patients on whom, to remedy the condition, a cervical suture has been performed. I have not sutured more than three cervixes during the past twenty-three years, and those for the reason of habitual abortion. Trachelorrhaphy is utterly useless for prolapse, it does not support the uterus, does not help the woman in any way I can see. All the claims that are made for the value of trachelorrhaphy I can disprove. My patients get along just as well without it.

The perineorrhaphy which is usually done and which is supposed to hold up the woman's organs, does not hold up anything. It simply produces a skin fold which forms a curtain before the vagina, and that is all. The patient complains of prolapse the same as before.

When we speak of prolapse we must remember that prolapse is not a simple condition of one organ, it does not simply consist of the uterus being two inches or less below where it was before. Prolapse is a disarrangement of all the organs of the pelvis, and if you try to single out any one of those and do work on that organ only you are very liable to get a poor result. Take, for instance, the case of a woman with a cystocele: She has to urinate constantly, she has incontinence and must get up nights, when she coughs or sneezes the urine spouts away; she is very liable to get cystitis, she is liable to get distortion of the ureters from the changed anatomical conditions, a hydro-ureter and hydronephrosis. Holding up the anterior wall by ventral fixation is an operation I see done commonly. That holds up the uterus nicely, but does it relieve the patient's symptoms? Not at all. Why? Because it has not done anything for the bladder except to take that part of the bladder attached to the anterior uterine wall and to hold it up an inch higher. That part of the wall which is displaced, that part which is really at the bottom of her symptoms of incontinence, is not affected by the ventral fixation at all. When you look over the careful anatomical investigations of Martin or Halban, you will find that on median section through the pelvis not only is that part of the bladder which was attached to the uterus lower than the uterus, but that part of the bladder which ought to be high up over the anterior wall of the vagina is in reality low down over the lower part of the vagina. The bladder has been stripped

away from the uterus and has healed into a faulty position. In repairing that case it is not sufficient to hang up the uterus, you must get the bladder back into its natural relation to the uterus.

The bladder loses its natural attachments not only with the uterus, but it loses its natural attachments in front, behind the symphysis. In normal conditions the bladder is lying right up against the symphysis, high up to the posterior aspect of the recti muscles, but when prolapse exists the bladder can be detached from its normal position to such an extent that when you open the muscles in laparotomy you see the posterior aspect of the symphysis bare, completely exposed. Operations which do not pay especial attention to these changed anatomical conditions cannot be expected to restore the natural function.

In my operation for prolapse<sup>1</sup> I have endeavored to secure these proper attachments for the bladder. I have secured them in over one hundred cases. I have had one recurrence in a woman who had diabetes and suppuration, causing failure of union. In the other cases I had very satisfactory results and the patients made good recoveries. The important thing in this operation is that you must detach the bladder absolutely free from the uterus. That is the one important step. You must not be satisfied with cutting off a little piece of the mucosa from the anterior vaginal wall and suturing it together, that does not help and it is not even sufficient after cutting out a piece to fold the bladder on itself and to fasten it with sutures. That does not restore the natural attachment. The only way is to dissect the bladder free, so that the entire posterior wall of the bladder is free and can be lifted up into the abdomen, then when you go into the abdomen you can lift up the posterior wall of the bladder where it belongs. You can then shorten the vesico-uterine excavation by attaching the peritoneum of the posterior surface of the bladder to the fundus of the uterus and thereby you attach the posterior surface of the bladder high up on the uterus again. Two women have gone through pregnancy after my operation without any difficulty.

Prolapse work in relation to rectocele has been carried out very successfully for years on the posterior wall. When the posterior wall hangs out in the shape of a rectocele, the reason is that the levator ani muscles have been separated the edges of which should naturally lie together between the vagina and the rectum. They should not cross from one side to the other, but should

be attached to each other by their margins. When they are separated, then the rectum can bulge out between these muscles. This reattachment of the margins of the levator muscles from side to side has been carried out for years and is eminently satisfactory for the rectocele, and I have nothing to add to that. However, I wish to remind you of those rare conditions of the congenitally deep *cul-de-sac* in which Douglas' pouch extends so low down that the peritoneum at the bottom of the *cul-de-sac* reaches down to the perineum so that when you incise the posterior vaginal wall just above the perineum you fall into the peritoneal cavity, which should not be accessible to an incision on the posterior wall of the vagina except for a half inch just below the cervix. Now, in these cases we have a posterior vaginal wall which is just ready to form the sac for a vaginal hernia, and such vaginal hernia may form in very young individuals. One of my patients was operated on at the age of fifteen, for the first time in her life, for prolapse. She had never had a child, and the prolapse was prolapse of the posterior vaginal wall. In that case suture of the rectocele will not cure the condition. How to cure that is really a very difficult problem. It would seem simple to take the peritoneum off that pouch and strip it up, tie and cut it off the way you do a hernial sac. One author has a picture of such an operation in his text-book which he evidently constructed at his desk at home. It is one of the most beautiful pictures of a lie I have ever seen. Why? Because the peritoneum does not strip away from the rectum. You can strip it away from the posterior vaginal wall, but not from the anterior rectal wall, so it is utterly out of the question to operate in that way. It requires a somewhat complicated suturing to obliterate that *cul-de-sac*. This condition is frequently associated with prolapse of the rectum, and the worst case of prolapse of the rectum that I have seen had just such a deep *cul-de-sac*. In her case it was necessary to obliterate that *cul-de-sac* by a system of sutures.

Just a word more about carcinoma. Carcinoma kills too many people. I would not dare say it kills too many if we did not have operations which will cure. But I am sure I speak in the name of every surgeon here when I assure the medical profession that cases of carcinoma, if sent to the operating table in time and operated on thoroughly and radically, can be cured. I want to fight with all my power the prejudice that it is no use anyhow. It is of use. But they must be operated early. The greatest trouble I have just now with carcinomatous cases is the advocacy of treatment with x-ray, radium, etc.

1. American Jour. Obst., 1918.

These methods have led more people to an untimely death than any other half treatment of carcinoma that I know of. The number of those patients who have tried radium and the x-ray, who have spent valuable, irrevocable time on half treatments, and who have died in consequence of the carcinoma, is far too great. An operable case of carcinoma belongs on the operating table. I am willing to except the skin carcinoma, I am not willing to except the uterine carcinoma. I still have to see the first case of uterine carcinoma that was ever cured completely by the x-ray or radium. I have been willing to experiment on cases that could not be operated on and have turned them over to the x-ray specialist. They are all dead with one exception, and I have never seen a single case treated by x-ray or any other radio-active substance, diagnosed properly by means of microscopic examination, cured and remain cured for five years after that treatment. I hope to be wrong in my estimation of the x-ray, and I hoped so very much more at the beginning of the x-ray era. I have seen one thing, however, and that is the frightful, rapid, incredible growth of carcinoma under x-ray treatment, when the carcinoma appeared stimulated by the x-ray rather than stunted. I have such a case under observation now, where the woman has a tumor the size of the fist in the abdominal wall with excrescences coming up over the skin, with her pelvis one mass of carcinoma, a woman who had an incomplete operation for carcinoma only six months ago, and then, for prophylaxis, was treated with the x-ray. I have never seen such extensive carcinomatous growth. There is no reason why she should have carcinoma in the abdominal wall, she didn't have it at the time of the operation. There is carcinoma now growing from the whole left side of the pelvis up to the abdominal wall. Just the other day I heard Dr. Ed. Ochsner speak in the same way:<sup>2</sup> He said, "Away with the x-ray treatment after carcinoma operations, it does not prevent recurrence." I will say that in my experience at least it has never cured a uterine case. Not until the last two years have I had my operative cases x-rayed afterwards, and I have stopped that again. I am afraid of the x-ray.

I like to talk of carcinoma to our associates in practice because in their hands lies the remedy. As long as the practitioner believes that carcinoma cannot be cured by an operation anyway, of course he will not send his cases for operation. I am most positive that carcinoma can be cured by operation if the operation is done early and thoroughly. Let us remind the practitioner again

that he must not wait for pain, that he must not wait for foul odor, that he must not wait for cachexia, to make the diagnosis, but that the diagnosis must rest on the first clinical symptoms of irregular hemorrhage of any kind, with more or less discharge in between, and the microscopic diagnosis in cases of doubt. If he cannot make the microscopic diagnosis himself let him send his patient where the diagnosis can be made. Do not cut a piece of the suspected tissue out of the cervix, send the specimen to the microscopist and wait a week or ten days for an answer and then operate, for in the meantime your incision may have allowed the carcinoma to spread. Where microscopic diagnosis is needed it should be made at the operating table immediately, so that if the case is found to be carcinoma radical operation can proceed immediately, not a week after. That is a very important thing, because we are quite sure that carcinoma can be grafted on fresh wounds. I appeal again to the practitioner to contribute his share towards the decrease of the hopeless carcinoma misery by early diagnosis.

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## THE SIGNIFICANCE OF ABDOMINAL PAIN\*

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Medicine is no longer a one man's job, it is team work. Team work with proper limitations, is our hope for best results. The real physician, the one who has only the good of his patient in mind, never fears roentgenray findings, laboratory results, dental examinations, or specialists reports. The specialist is with us to stay, and is most useful, but he must not be permitted to over emphasize the disease of one particular organ. We must always regard the patient as a diagnostic problem and view him as a whole.

We live in an age of preventive medicine, and although we are not yet able to prevent a great many diseases, we as physicians and surgeons, frequently are in a position to prevent complications of diseases, and through timely intervention prevent a serious, if not fatal outcome, thereby doing our bit in the conservation of human life.

Cabot says:

"The diagnosis of the causes and significance of abdominal pain is one of the most unsatisfactory as well as one of the most important, in medicine.

"Unsatisfactory because our methods of examination are so inadequate and of the tendency of

2. Chicago Medical Society Bulletin, 1918.

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local lesions to produce generalized pain, and of generalized lesions to produce localized pain. These obscure radiations often deceive even the most expert. Aside from the information obtained by the x-ray, the urine, blood, gastric, and intestinal contents, practically all our knowledge depends upon palpation and a good history of the case. A complete history of the patient's complaint, elicited with the most painstaking effort, particular attention being paid to the previous personal history, and an intelligent use of the eyes, ears and fingers being practiced, with a keen judgment in interpreting the facts."

Robert Franklin Ives, Brooklyn, N. Y., in "The Archives of Diagnosis" says:

"The successful comprehension of abdominal ailments, with their manifold methods of expression, demands an intimate acquaintance with the anatomy, physiology, histology and pathology of the abdominal structures and organs. In fact, success in the diagnosis of this complexity can only be obtained by observing the greatest care in the anamnesis, and after the most painstaking examination and with full laboratory data.

Nothing must be taken for granted, all examinations must be made with the fullest exposure of the abdominal area, and a careful general survey of the body as a whole."

Preconceived ideas must not bias judgment, or the importunities of the patient or friends for relief, especially if the acute pains, distract from the vital necessity of knowing the cause of the pain. Take ample time, and never hurry unduly is an abdominal axiom of great importance.

Especially, do not administer an opiate until you are sure that you are not clouding your symptoms, and so preventing a diagnosis.

Express the diagnosis only after the same has formulated itself, and that after the most exacting differentiation. The recent progress in diagnostic methods coupled with the knowledge that the autopsy statistics gathered by Cabot at the Massachusetts General Hospital show a remarkable tendency to error in abdominal diagnosis, and the tendency to apply the easier method of making the diagnosis after exploratory or operative celiotomy in many obscure cases is sufficient reason for the presentation of this paper.

Better is it to adopt the method used by the Mayo's or by the late J. B. Murphy and all noted clinicians whose methods embrace a complete physical examination in addition to the local—where each case is given exact individual study in order to prevent error in judgment.

Sir James Mackenzie's hypothesis of the so-called visuosensory, and the visuomotor reflexes, shed much light on the interpretation of

abdominal symptoms. They include such sensory phenomena as pain, hyperalgesia, and rigidity of the tissues, muscles and skin. The accurate noting of these less obtrusive phenomena will often throw a flood of light on many an obscure process and reveal the mechanism by which they work and the site of the lesion. They are not absolute, but very suggestive.

The board like rigidity of the rectus, and upper abdominal muscles following the perforation of a duodenal ulcer: and the rigidity of the muscular wall over the site of an inflamed appendix are examples of these reflexes.

Pain in distant areas, or the so-called referred pains must always be born in mind; the true association of which may prove very helpful. The reason why these pains are referred to portions of the body so distant is because, in the course of development, the tissues in a low scale of life immediately cover the organ displaced. Thus the pain felt in the testicle in renal colic is due to the fact that in the journey down to the scrotum, the covering of the testicle receive a twig from the first lumbar nerve—thus, when the center of this nerve is irritated or stimulated, as in renal colic, the pain radiates to the testicle, a pathognomonic sign of renal trouble.

Likewise in the condition of coronary sclerosis (Angina Pectoris) the referred pain often passes to the epigastrium, instead of into the axilla or down the inside of the arm. This must always be kept in mind, or the true diagnosis of the myocardial exhaustion may be overlooked.

In gall-stone disease shoulder pain is not an infrequent complaint even extending down the arm. It may persist with such severity that the casual condition may be overlooked, and the case considered as one of neuritis—the expulsion of a gall-stone being followed by instant relief. Individual idiosyncrasy modifies the subjective symptoms of pain; thus it is well to remember that some nervous people may call a normal physiological peristaltic wave pain, while the more plethoric or stoical may minimize it as an important symptom.

I would advise the development of a technic in eliciting the history and the localization of the pain. The schemes elaborated by Lockwood; Baseler and others show the importance of systematized data. Lockwood's scheme of locating pain is of value and should be used in the chronic types.

This analysis of pain should be made, *in order to associate it with some organ*:

Is it constant or intermittent? (Periodic.)

If constant does it have seasonable variations? (about 95 per cent. are periodic).

Is it local or diffuse?  
 If local, does it radiate?  
 Is it acute or chronic?  
 Does the pain relate to any physiological act, as eating or standing?  
 Is it present on awakening?  
 Does it occur after meals?  
 Is it sharp, cutting or burning?  
 Is it gnawing or burning?  
 Is it relieved by food or soda?  
 Has it associated symptoms? Nausea, vomiting, headache, chest pain, fever sweats, chills, dyspnoea, pallor, cyanosis, icterus?  
 Has it produced shock?  
 Especially would I call attention to a definite group of symptoms (syndromes, the "pyloric syndrome." It is of the greatest importance and its significance illuminates the subject greatly. Herz of London, proved that tension causes pain.)

The presence of food or liquid in the stomach creates tension, produces secretion, stimulates peristalsis, and increases the hypertonic muscular contractions, with the production in some conditions of a pylorospasm. When, therefore, diseased reflexes storm the solar plexus, these elements become pronounced and productive of painful sensations and are called pain.

The importance of this syndrome lies in the fact that it is excited into being not only by the presence of an ulcer of the stomach or duodenum, but by disturbances in the appendix, gall-bladder, kidney or spleen. It may be produced by the presence of adhesions in some portion of the intestinal tract, either congenital or inflammatory, as a result of a neurosis, or as a result of Bright's disease or tuberculosis. It thus explains many cases diagnosed as ulcer or operated upon without finding ulcer present. To recall this truth will prevent the making of a snap diagnosis of ulceration, and will awaken the faculties to precision. With this introduction, let me review some of the diseases in which abdominal pain plays a part. The list is instructive in opening our eyes to the need of careful differentiation. They are as follows:

#### Skin.

Painful, in erysipelas.  
 Herpes zosterabdominalis.

#### Musculor.

Trichiniasis.

#### Peritoneum.

Acute or chronic peritonitis.  
 Tuberculous peritonitis.  
 Hernia in linea alba.

#### Nerves.

Girdle sensations of disease of spinal cord.

#### Central.

Syringomyelia

Multiple sclerosis

Cerebrospinal lues

Vagus lesions

{ Syndrome gastralgia and distended bladder, suspicious of gastric crises.

High blood-pressure accompanied by arteriosclerotic pallor of face and dyspnoea, even slight suggest arterial starting point as angina pectoris.

Hunger pains from protracted fasting.

Tabes, gastric crises.

Pulmonary; reflected pain in pleurisy or pneumonia. Especially present in children.

Digestive.

Cardiospasm (spasm of esophagus).

Gastralgia (gastric spasm).

Gastric ulcer.

Acute, chronic, perforating and with complications.

Impure or unripe food gastritis.

Duodenitis.

Gastric carcinoma.

Colitis.

Appendicitis.

Gastric erythrim.

Functional gastric disturbances.

Hyperchlorhydria, or neurotic motor irritability.

Hour-glass stomach.

Pyloric stenosis.

Duodenal ulcer.

Acute-chronic, perforating and with complications.

General.

Cecal stasis.

Enteroptosis.

Gastroplosis.

Nephroptosis.

Acute dilatation (gastrectasis).

Plumbism.

Liver.

Cirrhosis.

Alcoholic.

Luetic.

Secondary biliary cirrhosis.

Hanot's hypertrophic cirrhosis.

Pick's pericarditic psudocirrhosis.

Hepatitis.

Acute yellow atrophy.

Abscess-cyst-gumma.

Subphrenic abscess.

Intrahepatic primary carcinoma.

Intrahepatic secondary carcinoma.

Inflammatory processia in the capsule.

Cholangitis.

Liver vessels.

Aneurism of hepatic artery.

Thrombosis a portal vein.

Gall-Bladder.

Cholecystitis.

Cholelithiasis.

Stone in fundus of gall-bladder.

Stone in neck of gall-bladder.

Stone in cystic duct.

Stone in cystic duct at the junction with hepatic duct.  
 Stone in the papilla of vater.  
 Stone in the duodenal portion of the common duct.  
 Stone in the common hepatic duct.  
 Carcinoma of the papilla of vater.  
 Ascaris in common duct.  
 Pancreas.  
 Pancreatic cyst.  
 Carcinoma of the head of pancreas.  
 Acute suppurative pancreatitis.  
 Acute hemorrhagic pancreatitis.  
 Pancreatic (calculi).  
 Kidney.  
 Infarct.  
 Embolism (of renal artery).  
 Dietl's crisis (movable kidney).  
 Ureteral spasm from aberrant artery.  
 Nephritis.  
 Pyelitis.  
 Pyelonephritis.  
 Pyonephrosis.  
 Hydronephrosis.  
 Perinephritis.  
 Renal congestion.  
 Renal tuberculosis.  
 Paroxysmal, hemoglobinuria.  
 New growths.  
 Hypernephroma.  
 Sarcoma.  
 Carcinoma.  
 Tuberculoma.  
 Renal calculi.  
 Body—pelvis, ureters.  
 Blood clots (renal).  
 Spleen—Spleen toxic infection.  
 Malaria or syphilis.  
 Perisplenitis.  
 Infarcts.  
 Splenomegalia.  
 Gancher type.  
 Van Jaksch pseudo-leukemic.  
 Anemia of infants.  
 Hemolytic jaundice.  
 Acquired (Hagen-Widal type).  
 Congenital (Chanfford-Winkonski type).  
 Banti's disease.  
 Pernicious anemia.  
 Intestinal obstruction, and inflammations.  
 Invaginations.  
 Bands—Kinks, adhesions.  
 Membranes.  
 Volvulus.  
 By calculi (obstipationalileus).  
 Constipational colics.  
 Ileocolitis.  
 New growth.  
 Carcinoma.  
 Sarcoma.  
 Tuberculoma.  
 Blood-vessels.

Angina abdominis.  
 Aneurisms abdominal aorta.  
 Thrombosis.  
 Inferior vena cava.  
 Embolism.  
 Superior and inferior mesenteric.  
 Abdominal hernias.  
 Umbilical.  
 Strangulatory.  
 Inguinal.  
 Femoral.  
 Retroperitoneal.  
 Mesentric.  
 Diaphragmatic.  
 Pelvis.  
 Pregnancy (labor).  
 Pregnancy (abortion).  
 Pregnancy (ectopic).  
 Ovarities.  
 Salpingities.  
 Salpingo (oophorities).  
 Pelvic peritonitis.  
 Pelvic abscess.  
 Pelvic adhesions.  
 Fibroids.  
 Ovarian cysts.  
 Dermoid cysts, etc.

Such a list is undoubtedly impressive and yet does completely include all medical and none of the traumatic surgical causes of abdominal pain. As it is manifestly impossible to review all these causes differentially, it may be wise to analyze a few of them, somewhat in groups.

#### THE ULCER GROUPS

The ulcer seldom causes great difficulty of detection, provided we ever keep in mind the significance of the pyloric syndrome and do not diagnose ulcer when none is present.

The pain of gastric ulcer usually begins shortly after the entrance of food in the stomach, and gradually increases until it reaches a climax. It is often associated with, and for a time relieved by vomiting. Its character is dull, boring and is located in the epigastrium. It penetrates through to the back, and develops at times a tender spot at the tenth, eleventh or twelfth space to left of the spine. Gastric ulcer cases are apt to cause great tenderness over the epigastric region. These patients refuse to tolerate even the slightest pressure locally. The vomitus may be bloody or contain blood. Anemia is common, while pyrosis or regurgitation of a sour tasting fluid frequently occurs. In fact belching and acid regurgitation with other signs are pathognomonic of *ulcer ventriculi*.

The differential from duodenal ulcer is rarely difficult. The striking and characteristic symptomatology of the latter, with its late pain, re-

lieved by food and soda, with melena instead of hematemesis, is important.

Orthoform grs. will promptly relieve gastric ulceration pain and not affect the duodenal type.

*Perforation*—The pain of perforation of a gastric or duodenal ulceration is startling in its severity and calls for accuracy in the differential. When the eroding process penetrates the walls of the stomach or gut without alimiting perigastritis—or periduodenitis—there occurs one of the most dramatic and fatal complications of ulcer, *perforation with resulting peritonitis*. The *intense* pain in the upper abdomen, agonizing in severity, overshadowing every other symptom—there is great depression, *but no real shock*. After a time the pain becomes less atrocious, and its lessening severity may thus deceive. The board-like rigidity of the abdominal wall, however, tells the story. A febrile condition supervenes, and an increased leukocyte count helps to make the diagnosis. Operation following the primary depression is imperative.

The differential count must always exclude the appendix and gall-bladder, which can readily be done by means of a careful history of preceding symptoms. The symptoms of perforation of gastric and duodenal ulcer are similar. The preceding history must make the differential diagnosis between them.

Acute hemorrhagic pancreatitis stands as a bugbear in the minds of many physicians, but its differentiation is both easy and accurate.

This and a ruptured pancreatic cyst are sudden in onset and *intense* in character, and resemble perforating ulcer. The pain, however, is more diffuse: the area of resistance and tenderness extends *transversely* across the abdomen—just above the naval, and describes the region of the pancreas. The signs of peritonitis *fail to appear*. The *shock is greater*: the *prostration more marked*. The pulse at once shows a poor quality. Vomiting is frequent; *cyanosis* appears, and death early closes the scene. Hemorrhagic pancreatitis attacks corpulent people, or woman in the early month of pregnancy. It rarely occurs before middle life.

*Gall-Bladder Disease*—The pain of gall-bladder disease is due to overdistension of the walls, to excessive contractions of its muscular walls, or to irritation of the mural nerves.

Overdistension may occur from obstruction of the cystic or common ducts by inflammation, stone, pancreatic lesions, pressure from adjacent lesions in viscera, and tumors. The organ enlarges, becomes very painful, and is readily felt by palpation. If *cholecystitis* or infection occurs, there is fever, chills and great tenderness.

The diagnosis is assisted by Murphy's gall-bladder percussion method, by palpation of the enlarged organ, and by the urobilinogen test found in the urine. Remember that chills and fever signify an infection.

*Perforation* should always be considered and prevented by operation. Use Murphy's technic for diagnosis. The sharp, cutting pains of *gall-stone* radiating to the shoulder and down into the abdomen, with vomiting, and no fever—located over the gall-bladder with or without icterus—and the negative ulcer signs, readily differentiates cholelithiasis. Gall-stone pain is apt to occur at night or some hours after eating. The sudden onset and cessation with local tenderness over the gall-bladder are evident signs.

*Charcots Intermittent Fever* as a result of impaction in the cystic duct should always be kept in mind. This Charcots fever is characteristic. The patient may have pain suggesting cholelithiasis with a sudden rise of temperature to 103°-104° to fall to normal within a few hours.

*Dietl's Crisis*—The differentiation from Dietl's crisis or renal colic may at times confuse, but the reflected pain of renal colic, to the testicle and the localization to the lumbar region soon tells the truth, *Dietl's crisis* does not produce pain over the gall-bladder, and as a rule the tender kidney can be felt by palpation.

*Charcots Gastric Crisis*—I would like to call attention to that confusing entity, *Charcots Gastric Crisis*. These attacks, when typical, are characterized by a *sudden, intense abdominal pain*, affecting the epigastrium, or lower part of the sternum, and radiating to the back and shoulders, usually accompanied by pain in the lower extremities, or by distinct girdle sensation. The gastric unrest terminates in vomiting of a slightly acid fluid: The vomiting is difficult and accompanied by retching. Temporary relief follows the vomiting. Excessive salivation and sweating accompany the above. The pain is unbearable.

The patient tosses about in distress. The differentiation is made by finding the evidence of *tabes dorsalis*. This picture should always be remembered, and *every* patient tested by the Wassermann reaction.

*Plumbism*—In these days when the automobile flourishes, the occupational disease termed plumbism or lead colic must ever be prominent in the diagnostic mind of the physician. It is a diagnosis of great importance, and hinges on our knowledge of lead poisoning. The patient complains of *intense, knife like pain* centering around the naval, radiating in all directions, with vomiting and constipation. There is abdominal tenderness, but no *fever*. The colic may last for hours

or for weeks. The abdomen is hard and contracted. The patient usually is bending over, pressing hard against the abdomen, which gives some relief. Anemia, pain, contracted belly, constipation, high pressure pulse and *no fever*, especially if showing the Burton's line on the gums—should lead to the suspicion of lead poisoning.

A blood examination reveals the basophilic granulation. This consist in the development in the erythrocytes of granules which stain with certain basic stains. The best stain to use is Thionin stain, which shows intense blue.

The lead line is found in only 50 per cent. of the cases, but when present is pathognomonic.

*Thoracic Diseases*—Abdominal pain frequently simulating appendicitis or cholecystitis occurs in thoracic diseases. Therefore, in every question involving the appendix or gall-bladder attention should be directed to the thorax, especially in children.

*Cecal Stasis*—I wish to call attention to a condition which in my judgment is of paramount importance, which is seldom diagnosed, is very common, and which is the cause of much illness. I refer to cecal stasis.

The alimentary canal possesses two pouches or reservoirs; the stomach, which receives and for a while retains, the food at the beginning of digestion, and the cecum, which receives, and for a while retains, the remnants of digestion; when for the most part digestion is complete. In either of these there may occur motor insufficiency, either from atony or overtonicity. The cecum normally retains the contents in order that imperfectly digested particles may undergo further separation, hydration and absorption. As a result, the intestinal cecal contents gain in consistency, thus offering mechanical stimulation to the cecum, and the expulsive peristaltic wave moves the mass upward into the ascending colon. Bacteria abound and putrefaction is common.

As a result of stasis there occurs in the patient periodical attacks of *severe pain* with fever, tenderness over the appendix, anorexia, nausea, vomiting and coated tongue. In a word, symptoms of *auto-intoxication*. The condition is repeatedly diagnosed as appendicitis, and after the appendectomy, to the chagrin of the doctor and surgeon, the condition persists in all its severity. Difficulty may be experienced in the acute stage, but the differential may be made by the absence of an *increased* leucocytosis, which is present in appendicitis. May I insist here that every physician should be prepared to make, at any time, his own blood-corpuscle and differential count. Only by so doing can a diagnosis be made without undue delay.

*Appendicitis*—Shall I take time to mention the surgeon's friend, the appendix? I will simply quote the 10 per cent. mortality rate today in most of the best hospitals to emphasize the need of prompt diagnosis and as prompt treatment by operation.

A case which starts with colicky pain, nausea, vomiting, elevation of temperature, may develop a leucocytosis and local sensitiveness in the right flank in six or eight hours. In twenty-four hours the pain and fever may be gone, because a gangrenous appendix causes no pain—its nerves are dead. It produces no elevation of temperature or leucocytosis because absorption of the products of infection are impossible through a dead mucosa, with the resultant drop in the previous temperature. To quote the late J. B. Murphy the sudden disappearance of pain is the last call to operate with safety.

The next symptom will be rupture and peritonitis, and perhaps a fatal ending. Always search for tenderness and don't be deceived. I would call attention to a point mentioned by Robt. Morris that lies in the same line on which is found McBurney's point one and one-half inches from the anterior superior spine. Another point, one and one-half inches from the navel on the same line, lies over the right lumbar ganglion of the sympathetic nervous system, and tenderness of these ganglia prove of great diagnostic value.

The thought to be impressed is this: In acute attacks of the appendix McBurney's point is most tender, with tenderness also over the right lumbar (Morris) point, and *no tenderness* usually over the left lumbar (Morris) point.

In post-inflammatory processes in and about the appendix, when scar tissues or adhesions have formed the chronic appendicitis cases, the tenderness over McBurney's point may disappear, to increase over Morris point with *no tenderness on the left side*.

Again: When the appendix is kept congested without infection, as is found in cases of loose right kidney, there is no tenderness at McBurney's point, but persistent tenderness at the Morris point mentioned. This is worth remembering.

When the right Fallopian tube is involved as a result of original appendicial inflammation, the Morris point proves very tender with no tenderness on the left side. Again: *When the Fallopian tubes are inflamed and not the appendix, then both right and left Morris points* are tender, but not McBurney's point.

To recapitulate: The patient comes to us with the appendix a question mark. If right lumbar ganglion (Morris point) is tender alone—then

appendix trouble. Right and left lumbar ganglion together—pelvic trouble. Trouble is cephalad when neither right nor left is tender. These points have been of very great assistance to me in cases of obscure diagnosis.

*Intestinal Obstruction*—A sudden abdominal pain, associated with vomiting, especially if repeated, should always suggest an acute abdominal lesion, such as obstruction by volvulus, bands, intussusception, strangulated hernia or obstruction by a foreign body—obturatorial-ileus, etc. If the vomiting persists and the pain gradually increases and spread over the abdomen, it is certain that the lesion is one of increasing gravity. These cases must positively be accurately diagnosed and promptly treated, and *should never be relieved by opiates to cover the diagnosis*, hoping at the next visit to be able to fathom the etiology.

Should a chill with rising temperature appear, it is very likely that the trouble is of an inflammatory nature. If instead, the pain is paroxysmal without temperature, colic or obstruction should be sought.

If the colic is gripping and with loose stools without blood at first, enteritis is probable. Should slimy or mucus stools with blood, and the patient an infant, then intussusception should be considered. In acute pain, without tumor or mucus or bloody stools, with an area of exquisite tenderness or rigidity, that of perforation, as in typhoid or ulceration, is sought. Volvulus *always* develops a palpable tumor.

Remember that borborygmus and active visible peristalsis are important symptoms of *chronic intestinal obstruction*, such as malignant neoplasm of the colon. Remember that new growths of the sigmoid can usually be felt in the left iliac region, while new growths of the rectum can be felt with the examining finger, or seen with the proctoscope. Therefore, always examine and re-examine patients.

It is well to recall that cancer of these areas does not show blood in the stools until ulceration results—hence, most reliance must be placed upon the borborygmi and active peristalsis.

Remember the bowel is silent in paralytic ileus, and noisy in obstructive ileus, and remember that mechanical obstruction does not have initial elevation of temperature. Obstruction caused by bands always suggests a previous operation or an inflammatory history, and remember from a prognostic import that when an obstruction is of several days' duration, the great question to settle is whether it is a strangulation or an obturatorial ileus.

If a patient with strangulation from valvulus, band or hernia—they become cold and clammy,

and exhibit the signs of shock, and are nearly moribund in four days. On the contrary, if the patient's hands and feet are warm without marked shock, the trouble is rather mechanical or obturatorial than strangulatory. This fact is of supreme importance prognostically.

*Obstipational Obstruction*—The blockade is chronic, the colic periodic with great severity, as the concretion passes onward. These we find in old people where stones formed in the gall-bladder ulcerate into the duodenum and begin their journey to the anus. These produce the obturatorial ileus, and unless remembered will puzzle the diagnostician.

Pain of a colic like nature located in the large intestine, is generally below the navel in the hypogastric region.

On the contrary, when in the small intestine, it appears above the navel, or in the umbilical area.

Again—A point of very great value is that in disease of the large bowel, pressure on the abdomen over the site of the colon (which in its transverse division is above the umbilicus, and in its ascending and descending divisions to either side of it) will produce pain in the mid-abdominal zone without pain at the point of pressure.

In lesions of the small intestine, the pressure in the area below the navel causes pain in the supra-umbilical zone.

*Chronic Pain*—Attention should be directed to a consideration of a type of dull, persistent, distressing pain felt over the right hypochondrium, of which patients make great complaint, and which is associated with marked enlargement of the liver, and usually with some increase in the size of the spleen. Three distinct entities have to be considered; for though similar in the location of the pain, they have little in common. I refer to Pick's pericarditic pseudocirrhosis, Hanot's hypertrophic cirrhosis and Banti's disease. All show marked enlargement of the liver.

Pick's syndrome can always be detected if a general physical examination is made. The presence of pulmonary tuberculosis; the adherent pleura and pericardium shown by the absence of Litten's sign, and the retraction of the chest wall with each cardiac pulsation; the presence of polyserositis, and an associated abdominal ascites.

Hanot's cirrhosis—shows the symmetrically enlarged, hardened liver, enlarged spleen, fluctuating jaundice—no ascites—irregular temperature, and a low systolic blood-pressure.

Banti's cirrhosis—described by Banti in 1894. The enlarged spleen, and liver, the marked anemia with leukemia, the tendency to hemorrhages, the presence of ascites.

With these diseases in mind, it is readily possi-

ble to analyze the painful types of splenomegalia associated with secondary anemia or splenic anemia. Splenic anemia can hardly be considered a definite clinical entity, as it includes several types. They all, however, produce a discomforting abdominal distress or pain.

The Gaucher type occurs in the young, the anemia is usually of the chlorotic type; no ascites and no enlargement of the liver. Microscopically it has a typical cell—large vesicular with a small nucleus.

Van Jaksch's pseudoleukemic anemia of infants is not receiving as much attention as formerly, for the reason that it has been determined to be one of the atypical types of blood disease. It occurs in children, and is characterized clinically by enlargement of the spleen, abdominal pain, and secondary anemia. Associated rickets is present.

Hemolytic jaundice, described by Hayem in 1898, shows enlarged spleen and jaundice and tendency to hemorrhages. An important laboratory finding is in the vital staining of the blood. Microcytes and reticulated red cells, microblasts, are found in increased numbers.

Blood examination becomes imperative in the making of abdominal diagnoses. Wright's stain is to be recommended.

*Adhesions*—Highly important is it to understand the relationship of adhesions to abdominal pain. Obscure conditions, proving elusive to diagnosis, can be illuminated if the story of adhesions be recalled.

As an end result of nearly all processes both inflammatory and otherwise, in the abdominal cavity, these unions of the visceral and parietal surfaces of the peritoneum can be productive of great distress. The pain is generally localized, and is produced by pressure or tension.

When these adhesions form between the stomach and anterior abdominal wall, the pain is often increased after eating, and a sense of fullness results. Inasmuch as the hollow viscus, namely the stomach and intestine continually change size and shape, the pull upon the adhesion area with each peristaltic wave produces a very annoying, stubborn, debilitating and exhausting pain.

These adhesions may be divided into groups, thus aiding in the differential of these obscure pains.

A. Gastric group, including cholelithiasis; ulcer of the stomach and duodenum; traumatism of the stomach, liver, pancreas and duodenum; and carcinoma of any of the above mentioned organs.

B. Intestinal group which is particularly associated with the appendix and sigmoid.

C. Pelvic group includes lesions of the tubes, ovaries and uterus.

D. Peritoneal group, including all lesions in which primarily the peritoneum is involved, as in tuberculous peritonitis.

The chronicity of these cases is a valuable point in the diagnosis.

The pain, the pyloric syndrome, the nausea, the vomiting, the tenderness over the epigastrium and hypochondrium—the tendency to colic and loose stools or the reverse, constipation—the abstinence from food—the emaciation, all aid in calling up the picture of adhesions.

In the gastric group: recall that there is no vomiting in duodenal ulcer, and that two symptoms—pain two or three hours after eating, and relief by eating—are extremely suggestive of duodenal ulcer. Their absence negatives the diagnosis of duodenal ulcer, and as the picture rarely wholly simulates gastric ulceration, this may be eliminated.

Intestinal adhesions: These cause pain, vomiting and distress, x-ray gives some help in diagnosis. Pelvic adhesions; may I advise the recalling of this condition in every chronic case of pelvic suppuration, especially in cases of salpingitis, or even after operative child-birth.

Remember in the words of Dr. Chas. L. Mix. We must learn that it is by no means necessary to diagnose disturbances of the abdomen as diseases with names. The diagnosis is often merely the determination of the anatomic conditions consequent upon healed disease.

In my judgment, adhesive conditions are responsible for a large group of diagnostic failures, and therefore advise that the thought of adhesions remain uppermost in the practitioners mind, particularly in chronic cases.

*Syphilis of the Liver*—Syphilis of the liver produces a frequent, and at the same time, one of the most obscure and difficult pains to recognize. This pain, which may be very distressing, is situated in the epigastrium. It is dull and persistent, does not seem to be definitely related to meals, although in a general way it comes after eating, especially with a full stomach. It is not relieved by soda or drugs. There is no nausea, no vomiting, or occult blood.

The liver is enlarged, and because of the presence of jaundice or ascites, the diagnosis of cirrhosis of the Laennec type is made.

The differential hinges on the abdominal findings, viz. The rounded liver edge, the presence of depressions, irregularly over the liver surface, or the finding of deep incisures with a lobulated formation. The liver is hard or resistant. This condition of the liver gives the clue to diagnosis. Should a clue be obtained the Wassermann reaction will prove the specific origin.

Three types are recognized:

- I. Cases resembling cirrhosis of the Laennec type.
- II. Cases resembling malignant tumors.
- III. Febrile cases resembling abscess of the liver.

The first must be differentiated by the absence of an alcoholic history; by the presence of the incisures, and the Wassermann reaction, and by the response to mercury and iodides. Also noting that the jaundice is of a lighter grade for the terminal stage found in alcoholic cirrhosis.

From the malignant tumor by the Wassermann reaction and by the response to mercury and iodides.

From abscess by the failure to obtain a history of amebiasis. It is in the acute stage with perihepatitis that it simulates abscess.

*Superior and Inferior Mesenteric Venous Thrombosis*—These conditions occur just often enough to deceive the doctor, and though rare in general practice, should be kept in mind.

Thrombosis of the mesenteric veins, in the majority of cases, are diagnosed as intestinal obstruction. The symptoms are similar to embolism of the arteries, though if anything, more severe; pain, localized or general, sudden in onset, with nausea and vomiting, abdominal tenderness and signs of obstruction. This pain may be a dull ache, or a very severe colic. The cause of the pain is thought to be due to the contraction of the intestine, which makes it analogous to the pain of obstruction, or simulate attacks of intestinal colic from abdominal arteriosclerosis angina abdominis.

The character of the vomitus depends on the severity of the involvement—first, normal stomach contents; later, bile, fecal matter or blood.

The differential is difficult. The most characteristic signs are sudden onset of colicky abdominal pains with a fall in temperature and passage of blood-stained stools; later intestinal obstruction and abdominal distension. It is frequently associated with thrombi elsewhere. Differential must rest upon the other signs. I mention this condition just to awaken your minds to the same.

*Thrombosis of the Portal Vein*—Usually caused by some pathological disease in the neighborhood of the vein. The symptoms of pylethrombosis are different in septic and non-septic cases. Septic or suppurative pylephlebitis results in multiple abscesses in the liver. Appendicitis is very frequently the exciting cause. Onset sudden, with a violent chill, high fever, profuse sweating and at times *intense pain*: a remitting

fever, gastrointestinal symptoms—a typhoid state—collapse and death to close the scene.

*Courvoisiers Law*—In cases of deep seated and persistent jaundice this law also referred to as the Bard—Pick syndrome, should always be kept in mind to aid the differential in cases of *stone and carcinoma*. The presence of jaundice, gastric distress, and palpable tumor in the gall-bladder area opens the question of diagnosis. Is it stone or cancer? (new growth). When jaundice exists for a protracted period, a positive closure of the biliary tract is evident.

This law is generally accepted to mean that a jaundice associated with a palpable gall-bladder always indicates malignancy. Unassociated with a palpable gall-bladder it indicates stone. The point of location of the neoplasm is most often at the papilla of Vater, or in the head of the pancreas. Time forbids further consideration of the causes.

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## MATTERS PERTAINING TO THE EDUCATION OF THE DEAF IN IOWA

JAMES H. SPENCER, Dubuque

We believe that every recipient of this publication will be interested in the statement that since 1915 an earnest and united effort has been made by the Committee on Conservation of Vision and Hearing of the Iowa Medical Society, the Iowa Association for the Advancement of the Deaf, and an Association of Parents of the Deaf, to bring about improved educational facilities for the deaf in Iowa. These organizations have also received at all times the cordial cooperation of the National Association of the Deaf.

Through these efforts two excellent bills were passed by the state legislature during the session of 1917. The first authorized the transfer of the state school for the deaf at Council Bluffs from the state board of control to the state board of education, and was introduced and fathered by Representative S. R. Reed of Monteith and Senator John Foster of Guthrie Center. The second bill authorized the establishment of day schools for the deaf in the various cities of Iowa where there are young deaf pupils, and was introduced and fathered by Senator N. J. Schrup and Representative B. J. Horchem of Dubuque.

Among the individual friends of the deaf who worked faithfully to secure these laws were: Dr. Joseph A. Ball, of Council Bluffs; Mr. and Mrs. Robert Henderson and Mrs. Edna H. Evans, of Des Moines; Matt McCook, of Riceville; Dr.



A meeting of the Iowa Association of the Deaf at the State School for the Deaf, Council Bluffs, Iowa

Henry G. Langworthy, A. C. Johnson, and James H. Spencer, of Dubuque.

Included in the "Campaign Literature" used in obtaining the day school law was the following brief but interesting circular of information:

#### THE EARLY EDUCATION OF DEFECTIVE CHILDREN

##### Why is a Day School Law Needed in Iowa?

It is needed (1) so that deaf and semi-deaf children in particular may be placed in school at kindergarten age, thus keeping their minds active and permitting them to acquire speech, if capable of doing so, before they are sent to the state school at Council Bluffs; (2) so that all defective children may receive individual instruction by trained teachers, if needed, instead of stumbling along as at present under impossible conditions; (3) so that it will not be necessary to send young children (often mere babies) away from home to be educated; (4) so that these children may be made to feel that they are part and parcel of our great, democratic public school system, permitting them to associate so far as possible with normal children, and to learn from them.

##### What is a Day School for Deaf and Semi-Deaf Children?

It is merely a room or rooms properly equipped and set apart in some one of the public school buildings of a city for the exclusive use of the deaf and semi-deaf children. The teacher is specially trained for this work, and can give individual instruction to about ten pupils. In most day school states, the local school board of a city furnishes the room, heat, light, janitor service, etc., and the state pays the salary of the teacher or teachers, either in whole or in part. Day schools for the defective in speech or the subnormal are similar in character, but separate, although often in the same building.

##### What Should be the Relation of a Day School to the State School?

It should be one of cooperation. In the language of Mr. Jay C. Howard, president of the American Association of the Deaf, "Day schools should be recruiting stations and feeders for the state school, while keeping active the minds of children too young to leave home. The essential feature of the system is an up-to-date and well equipped state school having a corps of well-trained teachers under a competent superintendent."

The exact copy of the measure enacted as it appears in the session laws:

#### EDUCATION FOR DEAF CHILDREN

##### Substitute S. F. 331

An act to authorize school corporations to provide education for deaf children and to provide state aid therefor.

##### Be it Enacted by the General Assembly of the State of Iowa:

Section 1. Instructors for Deaf Children—That any school corporation within the state having residing therein deaf children of school age may provide one or more special instructors for such deaf children, the instruction given under such special instructors to be substantially equivalent to that given other children of corresponding age in the graded schools.

Sec. 2. State Aid—That to any school corporation providing such instruction and complying with all of the provisions of this act there shall be granted and paid as hereinafter provided, state aid in an amount to be computed at eleven dollars for each month that each child not more than ten years of age is instructed under the provisions of this act. No child more than ten years of age shall be admitted to such instruction.

Sec. 3. State Board of Education to Supervise—That when any school corporation shall elect to proceed under the provisions of this act it shall, through its proper officers, communicate that fact to the state board of education, and the state board of education shall have general supervision of all matters arising under this act, and no instructor shall be appointed hereunder and no courses or methods of instruction shall be installed hereunder without the approval of such state board of education.

Sec. 4. State Aid, when Payable—That the state aid herein provided for shall be paid annually at the end of the school year upon properly authenticated and verified claim in form as may be required by the state board of education, and when such claim is approved by the state board of education the auditor of state shall draw warrant accordingly.

Sec. 5. Appropriation—That for the purpose of paying the state aid granted under this act, there is hereby appropriated out of any funds in the state treasury not otherwise appropriated, a sum sufficient therefor, such appropriation to be available for the school year 1917-1918 and annually thereafter.

Soon after the 1917 session of the legislature, a meeting was held at the Hotel Chamberlain, Des Moines, for the purpose of formulating suggestions for presentation to the state board of education relative to matters pertaining to the state school for the deaf at Council Bluffs, as the state board was soon to assume charge of that educational institution. Out of this meeting the following rather remarkable and hitherto unpublished document was prepared and signed and immediately placed on file with the secretary of the board at the capitol building.

#### To the Honorable Members of the State Board of Education:

Gentlemen—We, the undersigned, are deeply interested in the problems pertaining to the education of the deaf. We trust that under the management of your honorable body, our state school for the deaf will be brought to a condition of efficiency equal to some of the first-class schools now in existence in this country. We respectfully submit for your consideration the following recommendations as to reforms and future policy in connection with the school:

Section 1. An educator in full charge of school work. If necessary, separation of school work from the administrative department, and the principal given such authority as may seem necessary with the foregoing in view.

Sec. 2. Extension of oral work into the upper grades. A supervising teacher of articulation to give supervision of speech and to provide for speech training and lip reading for oral pupils now in the academic grades. The present supervisor of oral work might be assigned this additional work and another oral teacher be employed to assist her. Under the present arrangement at the school the three upper grades receive practically no speech teaching, and are graduated without sufficient attention having been given this important subject during those three years.

Sec. 3. As soon as sufficient appropriation can be secured for such purpose, we recommend the establishment of a segregated oral department. This segregation should be complete not only in classrooms, but in dining rooms, dormitories and play grounds. The following extract from an address by Mr. Jay Cooke Howard, president of the National Association of the Deaf, would cover our recom-



Day school for Deaf, Jackson School Building, Dubuque, Iowa, Miss Julia L. Dean, teacher



One of several fine buildings, State School for the Deaf, Council Bluffs, Iowa; Henry W. Rothert is Superintendent and Dr. J. Schuyler Long is Principal

mentation on this point: "Children without residual hearing should be carefully examined as to their capacity for speech and speech reading. They should get a thorough 'trying out' along these lines under the most competent and experienced teachers, favored by proper conditions and environment. If able to make satisfactory progress in their education and at the same time acquire practical speech and speech reading, they should be kept in a speech environment until the 'speech habit' is acquired. Those who are unable to make satisfactory progress, or are unable to develop practical speech and speech reading, should be taught by the manual method." Children coming to the state school who have attended day schools established under the new law will have had this "trying out" as to their capacity for speech and speech reading, and it will be a simple matter to assign them to a proper department.

Sec. 4. Reorganization of the industrial department. A better system of industrial training should be instituted than now prevails. A course of work can be outlined without much expense, and two years hence a special appropriation should be secured for necessary equipment for this department.

Sec. 5. Introduction of manual training and domestic science into the lower and intermediate grades. There is now room and some material for this work. The extra expense would be slight. More practical work to be given in agriculture.

Sec. 6. Provision for competent medical inspection. All pupils should be examined on entrance and provision should be made for regular periodical medical inspection. With children who possess residual hearing an effort should be made to increase the usefulness of this hearing by means of acoustic exercises or re-education of hearing. There is no provision for this work at the school at this time.

Sec. 7. Employment of a physical instructor or director of athletics. We believe that athletics should be encouraged.

Sec. 8. A complete survey of dormitory and dining room and all that pertains thereto, followed at the earliest possible moment by such corrective measures as may be found necessary to insure the physical well being and comfort of those in attendance at the school.

Respectfully submitted,

(Signed) Henry G. Langworthy, M.D.,  
Mrs. E. C. Evans,  
Joseph A. Ball, M.D.,  
Myrtle Long Henderson,  
Matt McCook, Pres. I.A.A.D.,  
P. L. Axling,  
Robert Henderson,  
J. H. Spencer.

On December 10, 1918, certain additional matters of great importance were brought to the attention of the state board of education in the following letter:

#### To the State Board of Education:

Gentlemen: The undersigned committee, representing various groups of citizens vitally interested in the education of the deaf in Iowa, respectfully offer the following suggestions relative to any recommendations that may be contemplated by you to the coming session of the legislature:

1. That it might be well to make no change in the day school law passed by the last session of the legislature, since the law has been in force too short a time to ascertain whether or not its provision can be improved materially. The law is very satisfactory as it stands, and the chief criticism that has been made so far is that it does not carry an appropriation

to help pay the board of pupils who attend the schools from outlying districts. Often the parents of deaf children are too poor to stand this expense, and yet they refuse to send their children to a school far-distant where board is furnished free.

2. That every effort be made to improve the school at Council Bluffs. We believe especially that the salary limit of the superintendent should be removed, so that the state board of education may be free to pay the superintendent a salary comparable with that paid by first-class schools for the deaf in other states.

It is believed by us that some of the equipment at Council Bluffs, especially in the industrial department, is more or less antiquated. If this is true, we hope that sufficient funds may be obtained with which to purchase such modern equipment as may be needed. Needless to say, the industrial department is of vital importance to the older pupils (and to the state as well), because it is here they learn to become useful and self-supporting citizens.

In the opinion of a number of our co-workers there is needed at Council Bluffs, as a part of the state school for the deaf, a segregated primary school (somewhat similar to a day school), where pupils may be admitted at the age of five, and where chief emphasis would be placed on speech, speech reading, reading, writing, and arithmetic until the pupils are ten or twelve years of age. We hope this matter will receive your serious consideration. Such a school is intended to reach pupils that are not readily reached by the day schools, but should not interfere with the latter.

We believe that the older pupils should be taught by methods that are best suited to their needs—either manual or oral, but that segregation is essential to good oral instruction.

We hope that particular attention may be given to the health of pupils at Council Bluffs, by very frequent medical and dental inspection.

Our only object in bringing these matters to your attention is to show our intense interest in the educational institutions for the deaf in this state, and to express again our desire to cooperate in every way to make them a success. Two years ago it was a matter of great gratification to us when these institutions were placed in the efficient hands of the state board of education.

Very truly yours,

MATT McCOOK,

President Iowa Ass'n for the Advancement of the Deaf.

HENRY G. LANGWORTHY,

State Chairman, Com. Conservation of Vision and Hearing, Iowa Medical Society.

JAMES H. SPENCER,

President Iowa Ass'n of Parents of Deaf Children.

There has never been a doubt that the state board of education would take the necessary steps

to improve the state school for the deaf at Council Bluffs as rapidly as possible, and the following splendid letter from the secretary of the board is of particular interest:

Des Moines, Ia., December 16, 1918.

Dr. Henry G. Langworthy,

Dubuque, Iowa.

My Dear Dr. Langworthy:

Your letter of the 14th instant, and a copy of certain excellent resolutions which were drafted on December 10th, are received.

The statute which limits the salary of the superintendent of the Iowa school for the deaf should be repealed, and so should certain other statutes which relate to that institution. The state board of education should be permitted to pay the superintendent whatever amount is deemed necessary. **The law permits this to be done at each of the other institutions.**

While we have given some attention to the health of pupils at both the college for the blind and the school for the deaf, we are anxious to increase the frequency and the efficiency of medical and dental inspection.

We agree with you regarding the segregation of primary pupils.

Additional equipment will be needed before long, and it will be purchased as soon as we have sufficient funds.

The Iowa institution should have sufficient funds with which to employ an ear, eye, nose and throat specialist. No doubt careful investigation would show that many of the children who are considered deaf, and who are taught as such, have some residual hearing which is capable of considerable development. Such children should be taught by special teachers who would endeavor to educate them by developing the existing hearing power.

I am an ardent believer in industrial or vocational training for certain boys and girls.

I want to assure you that the members of the state board of education are intensely interested in the education of the deaf, and whatever they can do to provide better opportunities for such unfortunate children they will do to the best of their ability. They are very anxious to see the Iowa school for the deaf as good as the best. To secure this result will take time, money, and cooperation on the part of us all. They expect to ask the 38th General Assembly for a substantial increase in the support fund. During the past year the income for support was \$59,400. The school will receive the same amount this year, which is inadequate. We will also ask for considerable money for other purposes. I feel confident that the members of the General Assembly will be willing to give us all that we need.

I certainly appreciate your interest in these matters, and I shall be pleased to hear from you at any time.

Very truly yours,

(Signed) W. H. GEMMILL,

Sec'y State Board of Education.

Our friends over the state will be pleased to learn that day schools are already in successful operation at Dubuque and Des Moines, through the hearty cooperation of the city superintendent of schools and the school board of these cities.

In conclusion, the organizations and individuals mentioned herein present these matters of practical and historical value in the belief that the parents of the deaf in Iowa, the deaf people of Iowa, members of the medical profession, educators, and many others will be interested in the program outlined, and that it will win their earnest support.

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### REPAIR OF THE EAR DRUM\*

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A. J. JOYNT, M.D., Waterloo

In presenting this paper, I first wish to state that I have nothing new or startling to bring out. With the exception of a few case reports I will tell you nothing which you do not already know. It is not the object of this paper to provoke a discussion on the therapy of either acute or chronic otitis media but it is to cite a method of procedure in the persistent perforation of the ear drum.

We all see cases, from time to time, with which the following therapy would be practical, and with a little time and effort it is surprising the degree of hearing one can restore, as well as the comfort one can afford his patient by not suffering with an otorrhea following every attack of rhinitis and nasopharyngitis.

Many methods have been used to induce the formation of a cicatrix to close a perforation of the ear drum; most of them gave unsatisfactory results. Multiple incision of the edges of the perforation; cauterizing its margins with silver nitrate; covering the perforation with a thin piece of paper, as proposed by Blake; the transplantation of a piece of skin (Ely); the application of a fresh piece of skin of a chicken's egg, (Berthold); and the cauterization of the margins with trichloracetic acid (Okuneff), have all been used and recommended. Of the methods hitherto used, cauterization of the edges of the perforation with trichloracetic acid, as recommended by Okuneff, 1895, has proved of most value. His assertions that dry perforations were made to cicatrize in nearly 80 per cent. of cases were confirmed by Gomperz, Spira, Blau, Biehl, Barnick and Wasmund.

The technic that I used is quite the same as that

recommended by Kerrison or a combination of that of Okuneff and Blake. The external auditory canal, the middle ear, as far as possible, and the perforated drum, are first cleansed and dried. A very fine applicator is then tightly wound with a small amount of cotton, moistened with water and dipped into the crystals of the trichloracetic acid. After the loose crystals have been shaken off, the applicator is ready for use. Some advise that a 10 per cent. solution of cocaine be first applied to anesthetize the parts treated but I did not find it necessary in a single case. They all complain of its burning a little but none of paining severely. The objection is that if the cocaine is not all removed, it and the acid form a precipitate and will not act thoroughly. The margin of the perforation is touched lightly with the prepared applicator until a white eschar can be seen all the way around. A small piece of paper—the kind not making any particular difference—is then cut a little larger than the perforation, dipped into 95 per cent. alcohol and fixed on the drum so as to close the perforation and override the margin. This can be easily done with a small knee dressing forceps. On a few occasions, there was a little discharge following the treatment and it lifted the paper off, but this can be avoided by cutting a small hole in the center of the patch to allow the discharge to escape. This hole also affords a better hold with the forceps on the paper when introducing and removing. The canal may then be filled with gauze to hold the patch in place and to absorb any discharge that might be formed. This is allowed to remain untouched for about a week. Kerrison recommends that this be left on until it is removed by the epithelium pushing out, but in my experience the cases seem not to do so well when left longer than a week, or at the most, ten days.

Touching with trichloracetic acid is indicated in all old, dry perforations excepting cases with the long process adhered to the misual wall of tympanic cavity. It is worthy of mention that neither the position or the size of the opening interferes with the result. This procedure is contra-indicated when the membrana tympani is defective in its entire extent, in perforation of Sharpnell's membrane and in cachectic individuals it is not a substitute for the radical or conservative radical mastoid operations.

In the past year I treated a few cases with a variety of perforations, and will report on five.

**Case 1**—Mrs. K., age thirty-two, housewife, with discharge and deafness in the left ear for six months. It began with a severe pain which lasted about a week, when, she says, "something broke" and the ear began to discharge and has discharged a little

\*Read before the Sixty-Seventh Annual Session, Iowa State Medical Society, Fort Dodge, May 9, 10, 11, 1918, Section Ophthalmology and Otology.

ever since. The examination showed a round perforation measuring about 2 mm. in diameter, just anterior to, and below the long process. There was very little discharge at this time. Hearing was 20/20 for right and 4/20 for left. The margin was cauterized and the perforation patched. This treatment was repeated at intervals of a week when at the end of five weeks the perforation was completely closed. After inflating a few times, hearing was 20/20 for left and she has had no trouble since.

**Case 2**—Mr. S., age forty-six, real estate agent with deafness in the right ear for six weeks, no pain and no discharge. It began with a severe pain in the right ear which lasted over night. He said the ear broke the following morning and the pain ceased. It discharged for two or three days and then dried up. From this time on he noticed the deafness. Examination showed a round perforation in the upper posterior quadrant of the drum, measuring 2 mm. in diameter, no discharge. Hearing 6/20 for right and 20/20 for left. This was treated the same way and closed after four weeks, leaving normal hearing.

**Case 3**—Mr. G., age forty-six, conductor, with deafness and discharge from the left ear. He had had the deafness since he was six or seven years old and discharge from time to time ever since, usually following a cold in the head. Examination showed hearing 20/20 for right and 2/20 for left. The left canal was filled with a thick offensive pus and debris. Cleansing this, uncovered an oval perforation of the drum measuring  $1\frac{1}{2} \times 2$  mm., just anterior to the long process; the axis being about parallel to the handle of the hammer. The canal and the cavity being thoroughly cleansed, the margin of the perforation was cauterized and a patch fixed. Due to the discharge in this case a perforation was made in the patch. After three treatments the ear was perfectly dry and the drum healed after the sixth. Hearing was improved considerably but was not normal. Two months later he came in again, complaining of deafness in the same ear, hearing now was 4/20, no pain and no discharge, but showed a small perforation in the same place where the old one was. After five treatments at intervals of a week, the perforation again closed and hearing was restored and he is now having no trouble.

**Case 4**—Mr. B., age twenty-seven, moulder, had his external auditory canal burned with molten iron. Examination showed a perforation of the drum, extending over almost the whole structure, leaving only a small strip of tissue around the handle of the hammer and margin. By keeping clean the perforation seemed to diminish in size for five weeks when it measured about  $1\frac{1}{2} \times 2$  mm. Then the progress stopped, and no change could be noticed from week to week. With cauterizing and patching it three times, at intervals of a week, it completely healed and hearing became normal and the drum showed no signs of ever having been perforated.

**Case 5**—Mr. R., age twenty-seven, druggist, with deafness in right ear for three years, following an explosion. He also had discharge with every attack

of pharyngitis. Examination showed a perforation of the right drum, measuring about  $3 \times 4$  mm., hearing of 3/20. He has already been given eighteen treatments, consisting of cauterizing and patching; the perforation now measures about 1 mm. in diameter. Very seldom has he any discharge and I think with a few more treatments it will become completely closed.

Of course this is not a large series of cases and it is possible that some of them, or all of them, might have improved or recovered without this treatment, but with the experience that I had, I think it is well worth following up.

### Discussion

**F. E. V. Shore**, Des Moines—This interesting subject brings up the whole question of infection of the tympanic cavity in the mastoid cells. I doubt very much the advisability of closing up a perforation in the drum without a cultured examination of the secretions also skiagraphs of the mastoid. There are a number of those cases of chronic condition of the mastoid cells that will continue to exist after the opening is closed. I recently had one that was operated on seven years ago in Denver, and he had practically no untoward symptoms until about a couple of months ago, when he had an unpleasant feeling in the region of the mastoid. It seemed to me as if the tip had been removed, but that he was having trouble in the zygomatic cells. An x-ray showed that he had quite an opaque condition in that region, much more so than you would expect to find with complete removal of the cells. On opening the mastoid, the tip had not been removed, and there was a low grade of destruction going on in the tip and in the zygomatic part. Now, that person had no discharge, and yet he had a low grade of trouble that was destructive in its nature, and would have continued indefinitely. In the cases the Doctor speaks of I haven't any doubt but that in some of them, at least, especially in the one where he has a secretion continuing at the present time, he has a low grade of infection of the mastoid cells, and it seems to me that it would be absolutely essential that a culture be made to determine whether there was any active infection, or infection of any description, in the tympanic cavity, before attempting to close the opening.

**Harold Gifford**, Omaha, Nebraska—I would like to ask the Doctor if he has tried simply trichloroacetic acid, without the paper, and if he is sure that the paper adds anything to the results.

**Dr. Joynt**—On a few occasions I left the paper off and they did not seem to do quite so well. I would not be sure but that they would get along without it, and they might get along with just the paper alone.

**Dr. Frank G. Carlson**, Mason City—I have just discharged a case that I have been treating for about three months. The history of the case was that following measles about fifteen years ago she had a continual discharge, with symptoms of mastoid, with

local treatments. Three months ago the case came into my hands, I had an examination made and an autogenous vaccine prepared. I gave her twenty injections of autogenous vaccine and the discharge ceased. I then treated her with the trichloroacetic acid without the paper. The opening has closed entirely and the patient is apparently well. After about ten injections of the autogenous vaccine I had a picture taken which showed no infection of the mastoid cells. Whether the case will remain permanently cured, or whether there would have been any infection in the cells without first using the autogenous vaccine, is a question; and whether the vaccine would clear up the infected cells in the mastoid is a question. At least the case is apparently cured at this time.

**Dr. Joynt**—In regard to the case that Dr. Shore speaks of, with discharge at the present time, I believe the discharge in that case is due only to the treatment. It is quite impossible not to get a little trichloroacetic acid on the tissues around site of treatment and the discharge follows that. This case never had a mastoiditis that I know of. His perforation was traumatic in origin and the margin healed, and there seemed to be no attempt at closure. He is feeling much better now, and hears much better than he did before the treatment. I do not think this would be at all a good substitute for radical mastoid operation, but I do believe where the ear is dry and the margin of the perforation has become healed and there is no further diminishing of the size, this treatment is well worth following up. Sometimes these close up automatically, and in that case there would be the same chance of damning an infected antrum as if they were closed with this operation.

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## THE GRADUATED TONSILLECTOMY\*

F. G. MURPHY, M.D., Mason City

There are several conditions under which a graduated tonsillectomy may be advisable, as in young children where the tonsils are small, but covered or partially covered by the plicæ and in adults who are not sufficiently strong to endure a tonsillectomy until better health has been acquired.

The writer's idea of a graduated tonsillectomy is that the first operation should be directed towards making the tonsil function normally and when this does not succeed, the extirpation of the tonsil should be accomplished. The question naturally arises as to what is a normal tonsil, and when is a tonsil made to function normally.

To this query no one so far as I know, has had the boldness to answer. However, the tonsil

that does not entirely fill the faucial fossa, or where the plicæ have entirely receded, is in the class of normal tonsils. When a systemic infection of tonsillar origin has been eliminated and the results are not gratifying, we feel it is unfortunate that a more careful diagnosis had not been made before the tonsil was attacked. Every laryngologist claims that a tonsillectomy properly performed is a major operation and yet we have seen skilled internists refer patients for a tonsillectomy where the tonsil appeared normal and where the patient had a mouth full of devitalized teeth which had not attracted his attention. That any tonsil operation shall be as near as possible a 100 per cent. success, we must keep in mind the selective action of bacteria and that inflammation of the pharynx and fauces may be the result of an intestinal stasis, devitalized teeth or lues.

The eye, ear, nose and throat specialist of today must be particularly alive to the necessity of removing impacted third molars, devitalized teeth and those affected by pyorrhœa alveolaris.

These patients must be referred to the dental surgeon who appreciates the possibility of a systemic disturbance of dental origin, and who will remove these teeth and not attempt to treat them.

That the result of the tonsil operation may more often meet our expectations, let us keep in mind that the tonsillar crypts are but diverticula of the epithelial covering of the faucial cavities, and that a congestion of this membrane may be due to the selective action of bacteria which have their origin in other foci of infection.

Now, where the tonsils are congested and the plicæ are not in evidence and there is abundant peritonsillar spaces it is fair to presume that the infection is not of tonsillar origin. It has been shown that peritonsillitis and systemic infections take place through the mucous glands that open into the peritonsillar fossæ.

It has not been shown that infection takes place through the tonsil, though it is taken for granted that at times it may do so. Where it is apparent that there is no peritonsillar infection, the laryngologist should hesitate to do a tonsillectomy until the pathological condition within the buccal cavity has been removed, and until a toxemia from an intestinal stasis or a possible luetic condition has been removed.

When it is found advisable to remove the kind of tonsil as above described, the graduated tonsillectomy is not advisable. Should the tonsil fill the faucial cavity, or if the plicæ has not entirely receded, in even a small tonsil there will not be sufficient drainage in the peritonsillar fossæ, and this predisposes the patient to quinsy and sys-

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\*Read before the Sixty-Seventh Annual Session, Iowa State Medical Society, Fort Dodge, May 8, 9, 10, 1918, Section Ophthalmology, Otology and Rhino-Laryngology.

temic infection. It is under these conditions that the laryngologist may find the graduated tonsillectomy to be to the patient's advantage.

By a graduated tonsillectomy the writer has in mind the attempt to first restore to a normal condition the peritonsillar drainage and the drainage of the tonsil itself.

When the plica triangularis has not normally receded, it is classed as a buried tonsil and has been a source of danger to its possessor since birth.

This kind of tonsil has its analogy in the devitalized tooth, in that the degree of infection caused by it is problematical. Behind the unreduced plicæ and at the apex of devitalized teeth pathogenic bacteria may invariably be found, and safety lies in their removal.

So far as I know, no attempt has ever been made by the profession to remove this congenital tonsil deformity. However, nearly two years after the publication of my first article on "Circumcision of the Tonsil," Dr. H. H. Hielscher of Mankato, Minn., and the Rev. Ph. Salomone, a Syrian minister at LaCrosse, Wis., informed me that the inhabitants of Syria have been doing practically the same thing for several hundred years, and so this new idea proved to be a very old one. The operation as performed by the Syrians consists in breaking up the plicæ from its attachment.

While this operation is performed by Syrians empirically, its success is known to be founded upon a scientific basis. Our histologies have for many years misinformed us in regard to points of exit of the mucous ducts from the glands around the base of the tonsil, as I have shown in former communications (Murphy, F. G., N. Y. Med. Jour., 1917, Vol. xcv, p. 785), and this misinformation has probably prevented us heretofore from solving the tonsil problem to some extent on a more practical and scientific basis.

The failure of the plica triangularis to reduce before birth undoubtedly has some effect upon the normal development of the tonsil, so that at times when peritonsillar drainage has been adequately established the constriction of the palatal muscles around the tonsil during deglutition will not drain all of the tonsillar crypts. When this occurs enucleation is advisable. I am convinced, however, that the time is coming when we will do comparatively few tonsillectomies. The conviction that every inflamed tonsil does not need enucleation is gradually creeping upon us.

The theory of focal infections and of the selective action of bacteria is revolutionizing the practice in all the specialties.

We must keep in mind that a peridental abscess may cause a rhinitis and tonsilitis as well as a disease of the appendix; that an intestinal stasis may be the etiological factor in a pharyngitis and tonsilitis as well as an arthritis. In some of our large clinics we see tonsillectomies performed by operators who are of the opinion that the tonsils are normal. These same patients will have many devitalized teeth or a disturbed intestinal tract and to whom a Wassermann has not been suggested.

We admit that a tonsillectomy is a major operation, yet we remove apparently normal tonsils many times before other sources of infection have been eliminated. The laryngologist cannot always govern the conditions surrounding his patient, however, and he as well as his patient may become the victim of circumstances. The patient may have been illy advised as to the importance of the operation, his physician may take little interest in gastrointestinal diseases, a Wassermann may be difficult to obtain, and his dentist may persist in attempting to treat a peridental abscess instead of extracting the tooth.

It is the opinion of the writer that a peritonsillar infection should not be allowed to exist, but before a tonsillectomy is advised all other possible sources of infection should be eliminated. Then will the necessary tonsillectomy be more easily and safely performed, and the unnecessary ones eliminated. Then we may with grace place the mantle of charity upon the form of our past mistakes and rejoice that there is prospect that victory may eventually perch upon our banners.

#### Discussion

**J. B. Naftzger, Sioux City**—It appears to me that the tonsil operation should not be condemned because cases which have focal infections, such as arthritis or endocarditis or something of that nature, have not recovered after the tonsils have been removed. We must admit that after these secondary foci are established the removal of the tonsil in that case may be of no benefit. It is also very hard sometimes to tell whether a tonsil is diseased or not. We sometimes have blind abscesses found in bisecting the tonsil after it is removed, which were not discoverable upon examination of the throat. Also I have seen several cases which have been treated under Dr. Murphy's method where it seemed to me there was such an intimate adherence between the pillar and the capsule of the tonsil after this operation that it was impossible to evert the tonsil at all, and there was a chronic inflammatory condition of the pillars which was very troublesome to the patient.

**Dr. F. E. V. Shore, Des Moines**—It is really interesting to have Dr. Murphy as an apologist for all the tonsillectomy operators! The Doctor in my opinion has confused the peritonsillar abscess and

the abscess within the tonsils. I have Rosenow as an authority for the fact that the streptococcus within the tonsil is the one that is responsible for a large majority of these rheumatic conditions, and not the peritonsillar abscess, the streptococcus of which is very much less destructive and shows a very much less tendency to travel to other parts. I don't believe that the Doctor would advocate the leaving of a tonsil that had an abscess within its capsule. I should judge from his paper that it is just these cases of peritonsillar infection in which he uses his graduated tonsillectomy. Am I correct in that statement?

**Dr. Murphy**—Well, I don't mean quinsy. It is not an abscess outside of the capsule that I am talking about. When I say a peritonsillar infection I mean an infection originating in the supertonsillar fossæ and the anterior fossæ behind the plica.

**Dr. Shore**—But outside the capsule?

**Dr. Murphy**—Yes.

**Dr. Shore**—So they are all extra-tonsillar infections the Doctor refers to. Now, those are not the cases on which the average tonsillectomy is performed, but those where you can by compression force some infection from the tonsil, an examination of which will reveal either the staphylococcus or streptococcus, and that is the infection which is producing the great part of the trouble and for which the majority of us are performing our tonsillectomies, and not for those which are extra-capsular. So that his operation would hardly substitute the average tonsillectomy. Those cases where there have been infections of a peritonsillar nature complicating infections within the capsule we all know involve much greater difficulties in removing, and they do not in the most expert hands yield 100 per cent. success. There is more or less disturbance from the disease of the muscles; there will be more or less disturbance of the functions of the pillars, and there will be more or less drawing of the uvula to one side or drawing it down, and it is immaterial who the operator is or how he does it. It is the result of a disease that has existed there for some time. But with those that involve the tonsil itself, intracapsule, the condition is entirely different, and those ought to yield 100 per cent. success. With a successful operator there is no necessity of injuring the pillars or the uvula or the plica, and the function of the muscles is retained in perfect condition at the close of the operation, and those are the cases for which I think the majority perform the tonsillar operation. The operation that the Doctor is doing now is so entirely different from the circumcision operation that I hardly recognize it as an aftermath of the original operation.

**Dr. Murphy**—We know that an arthritis or any other trouble will not always clean up readily after the original focus of infection has been removed; the secondary focus of infection may keep up the trouble. But one thing that I have in mind is this:

that when in the opinion of the laryngologist the tonsil is fairly normal, and the patient has devitalized or impacted teeth, or has a constipation and intestinal absorption, these sources of infection should be taken care of before the patient is subjected to a tonsillectomy. Now, we all know what brilliant results we many times get from a tonsillectomy, but the point I wish to emphasize is that we should eliminate other focal infection before subjecting the patient to a major operation, so that when we do operate the tonsil we will be more sure of results. Intestinal troubles cause a good deal of difficulty in the pharynx. A nephritis will cause a pharyngitis, and in the faucial area we will have a tonsillitis. We may have a pharyngitis from any focal infection outside, and in that case when we remove the tonsils we have not removed the original cause. When the plica is not absorbed before birth there is always a pocket in the peritonsillar fossæ, and we surely get an infection from that kind of a tonsil, and that is the kind of a tonsil that I am insisting should be operated. It is not always an easy matter to remove the plica and not have some adhesions, but I think it should be attempted. Surely we get an infection in the supratonsillar fossæ when the plica is large, even though it is considerably reduced. Scientific investigations along this line have not shown that a tonsillar infection takes place through the tonsil; we must keep that in mind. I talked with Dr. Rosenow about these tonsillar abscesses when he came back from New York, where he was working with poliomyelitis cases. I said: "Where did you find your abscesses, inside of the tonsil or outside of it?" "Just outside of it," he said. Outside the capsule is where all of our mucous glands are, and through which infection takes place, and no one on record has shown that those mucous glands enter the tonsil. The tonsil possesses a system of closed lymphatics, and it is in the tonsil where there is no plica and no peritonsillar space and where there is no accumulation of secretion. In that kind of a tonsil we don't get systemic infections; that has been shown clinically for a good many years. No attention is paid in our text-books as to whether an infection of a systemic nature originates in the tonsil or in the fossæ around it. I have called attention to this several times. Our histologies are all wrong in this respect, as such men as McLaughlin of the University of Pittsburgh and several German and French investigators have shown many years ago. Our histologies reiterate the statements published thirty years ago, and it is to be hoped those corrections will be made in the near future. When the anatomy of the tonsil is correctly taught we may expect tonsillar surgery to be adjusted to a more practical and scientific basis. I say, do a tonsillectomy whenever it is necessary, but let us not do our tonsillectomies so indiscriminately, and when it is apparent that the patient has other foci of infection—for instance, if he has devitalized teeth, he should have them removed; he should have his intestinal troubles taken care of. Then maybe his apparent

tonsil disease will all disappear, and if so, we will have eliminated an unnecessary major operation for the patient. If this does not succeed, let us open the peritonsillar spaces enclosed by the plica, which is a minor operation. If that is not successful—though it invariably will be if other apparent foci of infection have been removed, we should do a tonsillectomy.

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Oakland, Cal., December 30, 1918.

A. G. Field,  
1313 Thirteenth St.,  
Des Moines, Ia.

Dear Doctor:—Nearly six months have passed since we exchanged greetings. My last letter was written while on the ranch and with pen. Although you are on the debit side, I believe, I will forgive you seeing you are the oldest and solicit your continuation of correspondence.

On coming home I went over to San Francisco to look up your son Dalton. I found he had been transferred to Sacramento. He responded to my card I left at the San Francisco office for him, and told where his family were living. As we soon left for Portland for our annual visit up there, I put off calling on them until I returned. I looked them up after coming home and found them on a sightly place a mile or two the other side of the center of the City of Berkeley, four miles from here. A few days ago, on some Saturday, I met him at the bank, where it seems we both deposit. He is looking well, and has rounded out like a man close to the forties. He tells me that the "flu" visited them but that they were all convalescent.

We, at this house, have been fortunate in not having to entertain the beast, though all three of us are coughing, which may be interpreted as an indication that there is a lodgment of his advanced guard on the vestibule of the organ which he seats himself to wind up our existence.

When we are able to compare statistics I think we will find that more succumbed in the battle against this demon in this country than were lost over there to suppress the Hun. Have you any theory of the "Providence" of these battles?

On returning home from the treatment of my nephew's eye of which I wrote you in my last letter, I examined the books in my library as to the teaching in different forms of keratitis. I found that ten of them whose publication, dates after the discovery of the use of cocaine (1884) recommends the use of cocaine in all forms of suppurative keratitis, some freely and one or two with caution, but none have recognized the fact on which I have based the danger of its use in all forms of keratitis and none give caution on this physiological fact that cocaine contracts the vessels of the eye and cuts off the supply of sustenance which the cornea depends for its life; some of them mention the fact nature throws out a vessel towards the central ulcer to supply sustenance, but advocates cocaine which dries up that vessel.

I learned in the seventies to deal with corneal troubles, especially suppuration of—and when cocaine came into use I soon figured out that the blanching of the conjunctival vessels by it would not do. As to letting off the aqueous humor I did not wait until there was danger of perforation, but performed paracenteses early; as soon as hot applications failed to cause pus to absorb. The taking off the intraocular pressure promoted healing immediately. I never had to cauterize an ulcer either.

I am amazed at the danger there is to blindness on this score. It is as bad as poultices in early times. There is no reason why a small wound to the cornea by splinter or a cinder that a person should lose the eye, yet the latest books of Wood has this course of treatment and this treatment is the key to the loss of so many eyes after corneal wounds. Once a practitioner uses it for the pain, it is so charming that he will resort to it, always.

I have been tempted to write this up, and with some other things that I have practiced, put into a book.

Well, I do not know whether you are interested in dissertations on medical subjects. You will get a glimpse of what my mind is still running on. I can't give up thinking on the old line.

I hope you are well and enjoying the Yuletide. We are having fine weather. Have had five frosts, a little more than commonly out here.

Yours in fraternity,

E. H. HAZEN, M.D.

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#### LIST OF PHYSICIANS ENGAGED IN INDUSTRIAL PRACTICE

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Dr. D. S. Fairchild,  
Clinton, Iowa.

My Dear Sir: Will you kindly call attention in the next issue of your Journal to the fact that Dr. Francis D. Patterson, chief, division of industrial hygiene and engineering, department of labor and industry, Harrisburg, Pa., is desirous of obtaining a complete list of all physicians engaged in the practice of industrial medicine?

It has been the practice of this department to hold semi-annual conferences of industrial physicians and surgeons for several years. These conferences are well attended, and a great deal of valuable matter is presented in the discussions. In order to reach all physicians interested it is desirable to have their names upon our mailing list. The next conference will be held early in 1919, and it is, therefore, essential that the names and addresses of all industrial physicians and surgeons be in my hands as soon as possible after January 1.

Expressing to you my deep appreciation for your courtesy in calling this matter to the attention of your readers, I am,

Very sincerely yours,

FRANCIS D. PATTERSON,

Chief, Division of Hygiene.

# The Journal of the Iowa State Medical Society

D. S. FAIRCHILD, Editor.....Clinton, Iowa

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## MEDICINE AND THE INDUSTRIES

During the war, numerous committees have been appointed in England and America to consider the health and welfare of workers in industrial plants which were called upon to speed up in war munitions. Much information was gathered which tended to show that health supervision would add materially to the efficiency of the workman, lives could be saved and valuable men could be preserved in productive fields much longer if protected from dangerous influences.

Dr. David L. Edsall after a careful study of conditions under which men work in certain industries, published his observation in a lengthy paper in the September Johns Hopkins Bulletin. Dr. Edsall does not publish definite conclusions, but simply submits what he found with suggestions as to betterment. In several instances slow and insidious poisoning was found which could not readily be differentiated from certain blood diseases. Expert diagnostic study pointed to probable poisoning from substances floating in the dust, in one instance, benzol. The managers cooperated in investigating and remedying the difficulty even at considerable expense.

It may not be possible at present to determine how far measures will be adopted to secure full time supervision, but there is a growing belief that the real interests of industrial corporations and the demands of workers will bring about some radical changes either voluntary or through legislation. The methods in operation in Iowa

are altogether inadequate. The physicians appointed for the service of corporations are in only a few instances trained men or trained in scientific diagnosis or equipped for such diagnosis and the organization is not such as to accomplish more than to remedy such accidents as may occur in the ordinary operations of the business. The committee investigations and recommendations above referred to, lead to a much wider range of health activities than has thus far been contemplated. We are informed that certain managers of industries are contemplating the adoption of plans for the betterment of labor conditions for two reasons; first to secure greater industrial efficiency on the part of employes and greater safety in operations; second, as a matter of greater productiveness and justice to the workers. Great loss has come to industries from the employment of men unfit for the service demanded of them. To meet this, thorough examination of applicants for employment should be made and the results recorded for reference. The examination if properly made should disclose the important fact of whether or not the applicant is fit for the particular employment, if not he should be assigned to employment which is suited to him and thus contribute to the welfare of the man and to the interest of the industry. Serious injury and even loss of life, often comes from fitting an operator into a place unsuited to his capacity. To maintain the efficiency of the workman his working conditions should be inquired into, even to his home environment, upon which instructions may be given without loss of self-respect. There are insidious diseases which do not declare themselves in such a way as to lead the worker to seek medical advice until it is too late for material relief and even then, advice may be sought of men little fitted to make a proper diagnosis.

Glycosuria, diabetes, chronic nephritis, loss of vision, or hearing, any of these or others, may pass unnoticed until the opportunity for cure is lost. The loss of efficiency first noticed by the watchful foreman may be the first evidence of failure and should be investigated. It is no more than just that the wage earner of the family, should be protected in his usefulness and it should be a part of the responsibility of the manager, through some agency, to watch over the workman who contributes to the success of the enterprise.

It has been intimated that the greatest obstacle to the employment of whole-time medical service in industrial work comes from the medical profession itself. It is difficult to believe that this is true. It is said that anything short of complete freedom of choice in the employment, of physi-

cians savors of paternalism, it impairs the right of individual action and apparently the worst of all, it is unjust to the great body of the medical profession who are seeking by free competition to secure the largest clientele possible.

It has been said that unless something like the above suggestions are worked out voluntarily the labor organizations, which are vastly more powerful than the medical profession, will seek more or less drastic legislative enactments.

If it should come about that specially trained medical men are given full time industrial service, they must be not only trained diagnosticians, but trained laboratory men as well with hospital facilities at their command.

This falls short somewhat of what is meant as health insurance but will meet in some degree medical welfare service as applied to the industries. In this connection it should be provided that the physician connected with the industry, interfere as little as possible with the rights and functions of the family physician and that he should limit his professional activities to the things that relate to the interests of the corporation. It may be difficult to draw the line to the satisfaction of all parties concerned but insurance companies, railways, steel corporations and some mercantile companies seem to have succeeded fairly well. We have no doubt that if the subject is studied out carefully, adjustments can be made that will be generally satisfactory. This has no relation to the medical practitioners in small towns, or to those whose practice lies among tradesman and general unorganized labor.

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#### MEDICAL SOCIETY DUES

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One of the accepted duties resting on society membership is the payment of dues and assessments fixed by a constitutional majority. The idea of society membership is to promote the welfare of those having a common interest or for social, religious, or economic purposes. Centuries ago English speaking people organized Guilds for the promotion of certain interests. More recently societies or associations have taken the place of Guilds (which had severed their purpose of controlling certain businesses or employments). A medical society of today is far more democratic than the medical or surgical Guild of many years ago, and yet it serves the same purpose. A doctor can hardly expect to be in good standing in his community unless he belongs to his county and State Society, he cannot be looked upon as an established man or doctor, only a medical wanderer, a man without a country, so

he associates and affiliates with men of his own calling, if he does not, the people wonder what kind of a man he is. Something like a stranger who goes to a hotel for lodging without baggage or belongings. Doctors and the public know that a medical society is for the purpose of exchanging views on medical subjects, for cooperation and for fellowship; if a doctor has none of these aspirations he does not belong to a medical society and the people notice it and wonder. If the doctor says he does not want to be restrained or handicapped by society membership or that he holds himself above the common herd of doctors or that he cannot afford to waste his valuable time, or great skill and ability in instructing his inferiors, people laugh and point him out as a wonder.

The unaffiliated doctor may have thick skin and not see what others see, so such prodigies have their day and disappear because the people do not believe in them.

Very few doctors from freedom of choice place themselves in such a position and have always in mind to join, but put it off; at last some unfortunate day brings a malpractice suit and he finds himself standing alone. He may have money and does not mind the expense, but he finds himself outside, no one knows him in a professional sense and leaves him to his own resources. If he has but little money the entire burden of defense falls on him and reduces him to straits. If he is an Iowa doctor he really does not mind five dollars which will give him certain benefits, the greatest of all being fellowship with his kind.

If he is a member of his county society and always has been, he should first of all pay his dues; he intends to do so but for some reason which he cannot explain puts it off; he always has the five dollars in his pocket and is willing to part with it, but he don't; he waits until the last of April then July, September, then to the last of the year, just because he is a doctor and has cultivated careless ways about money.

We are writing this just because we are putting ourselves in a frame of mind to pay our own dues. We have had many things to think about in the past year and have not got back to normal ways of thinking. We have been thinking of what doctors have been doing in the greatest of all wars, how one-half of the active practitioners of medicine have given up their home work for the benefit of others, how comparatively little credit they have received for this sacrifice, except the consciousness of duty done. With the most profound respect for the medical men who have worn the uniform we must again remind them that the dues for 1919 should be paid. The

dues are due now.

We are at the threshold of a new world; we have many duties to perform and none are better equipped for the great things to come than the medical practitioners, none should have a wider vision of the civil, social and health problems; none see all sides of the lives, hopes and aspirations of the common people who are the backbone of the country, as we see them. So let us strengthen all our resources and be prepared for fullest cooperation in the days near at hand.

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#### ORDERS TO OFFICERS OF THE MEDICAL CORPS, U. S. ARMY

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To Camp Sheridan, Ala., from Camp Wheeler, Capt. G. R. Hill, Charter Oak; base hospital, from Fort Oglethorpe, Lieut. B. A. Barnes, Shenandoah.

To Camp Wadsworth, S. C., base hospital, from Fort Oglethorpe, Lieut. H. G. Moershel, Homestead.

To Fort Bayard, N. M., from San Antonio, Capt. L. L. Craven, East Peru.

To Fort Des Moines, Ia., from Washington, Capt. G. C. Skinner, Cedar Rapids.

To Fort McHenry, Md., from Fort Oglethorpe, Capt. R. E. Peck, Davenport.

To Fort Sill, Okla., base hospital, from Fort Riley, Lieut. C. E. Lowrey, Centerville.

To Hoboken, N. J., from the Surgeon-General's office, Major H. C. Parker, Dubuque.

To Newport News, Va., from Camp Lee, Lieut. B. Houston, Nevada.

The following order has been revoked: To Hoboken, N. J., from Camp Devens, Capt. M. A. Healy, Boone.

To Camp Gordon, Ga., from Fort Riley, Capt. F. P. Leehey, Oelwein.

To Chicago, Ill., from Fort Oglethorpe, Lieut. T. W. Blachley, Centerville.

To Denver Colo., from Fort Riley, Capt. J. G. Ryan, New Sharon.

To Fort Des Moines, Ia., from Fort Oglethorpe, Lieut. C. M. Wray, Iowa Falls.

To Fort McHenry, Md., from Camp McClellan, Lieut. J. J. Beatty, Farragut.

To Fort Porter, N. Y., from Ann Arbor, Lieut. E. P. Benedict, Battle Creek.

To Fort Sheridan, Ill., from Fort Oglethorpe, Lieut. M. T. Easton, Conway.

To Long Beach, N. Y., from Camp Crane, Lieut. M. O. Brush, Shenandoah.

To Washington, D. C., Surgeon General's office, from Camp Wadsworth, Capt. G. H. Steele, Belmont; from Fort Riley, Capt. H. M. Austin, Wellman.

The following order has been revoked: To Detroit, Mich., from Camp Crane, Lieut. W. W. Murphy, Lewis.

To Biltmore, N. C., from Camp Crane, Lieut. M. T. Morton, Iowa City.

To Camp Dodge, Ia., from Camp Grant, Capt. J. H. Schrup, Dubuque.

To Denver, Colo., from Fort Oglethorpe, Capt. T. B. Lacey, Glenwood; from Fort Riley, Capt. J. T. Padgham, Grinnell.

To Fort Leavenworth, Kan., from Fort Riley, Capt. P. B. Battey, Independence; from Washington, Lieut. J. I. Marker, Centerville.

To report to the commanding general, Northeastern Department, from Camp Devens, Capt. C. B. Rogers, Earlville.

The following order has been revoked: To Camp Abraham Eustis, Va., from Camp Custer, Lieut. J. W. Myers, Sheldon.

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#### HONORABLE DISCHARGES, MEDICAL CORPS, U. S. ARMY

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Lieut. G. Mattison, Jr., Akron.

Capt. J. C. Dennison, Bellevue.

Lieut. O. W. McGrew, Grandview.

Capt. J. E. McDonald, Capt. S. A. O'Brien, Mason City.

Lieut. J. S. Caldwell, Lenox.

Lieut. G. H. Boetel, Rock Rapids.

Capt. E. W. Myers, Lieut. E. L. Hollis, Rolfe.

Lieut. J. W. Myers, Sheldon.

Lieut. R. E. Robinson, Walnut.

Capt. E. T. Wickham, Washington.

Capt. C. B. Taylor, What Cheer.

G. Donohoe, Cherokee.

C. B. Luginbuhl, J. T. Price, Des Moines.

G. R. McDowell, Gladbrook.

J. R. Black, Jefferson.

B. B. Everall, Monona.

B. J. Voight, Spencer.

J. T. McConnaughey, Winfield.

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#### SOCIAL EDUCATION CAMPAIGN

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The United States Government has asked the women of the country to assist in a campaign for social education in public health. Iowa has responded by forming a lecture bureau of six women physicians who will tour the state during the months of January and February to present the government program. They will work under the supervision of the Commission on Training Camp Activities, War Department, and the War Council of the National Y. W. C. A.

The reason for this campaign dates back to the discoveries made early in the war, concerning the prevalence of social diseases among our men in service. The government found that the danger from these diseases could largely be removed through education. As this condition was not confined to military life—in fact the infection came largely from the civilian contact—the government is determined that the work started through war necessity shall not be undone through the ignorance or indifference of civic life. In consequence, an educational pro-

gram has been prepared, largely to the men and boys of the country. Iowa is already familiar with this phase of the government campaign. So long as the question is one of social interest, the program could not be confined to men. This is the reason that the government is asking the cooperation of all women and girls. The state organizers are: Miss Esse V. Hathaway, Des Moines supervising organizer; Mrs. C. G. Walner, Atlantic; Mrs. Maude F. Swan, Sioux City.

The lectures will be represented by the following women physicians: Dr. Lenna L. Means, Des Moines, supervisor of lecturers; Dr. Kate Harpel, Boone; Dr. Josephine Rust, Ft. Dodge; Dr. Jeanette Throckmorton, Chariton; Dr. Nelle Noble, Des Moines; Dr. Mae Habenicht, Des Moines.

It is a government call that includes everyone. It is a distinct honor to assist in stamping out disease, in order that the whole American people may be what General Pershing says the American Army is, "The cleanest the world has ever known."

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Harvey, N. Dak., January 5, 1919.

Dr. T. B. Throckmorton,  
Des Moines, Iowa.

Dear Doctor: Enclosed please find my check for \$2.00 for which kindly mail me the Iowa State Journal for one year beginning with the January number.

As a news item if you care to use it, you might say that I have left the faculty at the University of Iowa where I held the chair of surgery for the past twelve years in the College of Homeopathic Medicine and have taken charge of the hospital at Harvey, N. Dak. I have been here now since the first of the year and things are opening up very nicely for me.

Thanking you for this favor and trusting that I may receive the Journal at once for January, if it is out, I am as ever.

Yours fraternally and truly,  
FRANK C. TITZELL

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### SOCIETY PROCEEDINGS

At the meeting of the Cass County Medical Society held at the Masonic parlors, Atlantic, January 15, the following officers were elected: W. F. Graham, Atlantic, president; R. L. Barnett, Cumberland, vice-president; M. F. Stults, Wiota, secretary-treasurer; C. L. Campbell, Atlantic, delegate.

The business session was followed by a Symposium on Influenza: Lungs, C. L. Campbell; Eye, Ear, Nose and Throat, U. S. Mullins; Intestines and Liver, W. S. Greenleaf; Vaccines and Phylacogens, M. F. Stults, Wiota.

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At the regular meeting of the Cerro Gordo County Medical Society held at Mason City, January 29, the following officers were elected: S. M. Mason, president; F. G. Murphy, vice-president; S. A. O'Brien, secretary-treasurer, and G. C. Stockman, delegate; all of Mason City.

At a meeting of the Dubuque County Medical Society held at Dubuque, the following officers were chosen for the ensuing year: President, Dr. J. M. Walker; first vice-president, Dr. Mary Killeen; second vice-president, Dr. E. F. Mueller, Dyersville; treasurer, Dr. G. C. Fritschel; secretary, Dr. J. E. Calhoun; librarian, Dr. W. P. Slattery.

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Major E. T. Edgerly of the base hospital at Camp Dodge was the principal speaker at the annual banquet of the Polk County Medical Association at the Chamberlain Hotel. He discussed the recent campaign against pneumonia and influenza.

New officers were elected as follows: President, Major John F. Peck; vice-president, Dr. C. C. Shope; Secretary, Lieut. Thomas F. Duhigg; treasurer, Dr. Elmer Mountain.

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The Polk County Medical Society held the January meeting at the Chamberlain Hotel, Des Moines, on January 28. The following two very interesting papers were presented:

Orbital Abscess—W. W. Pearson, M.D., Des Moines.

Some Observations on Empyema—Channing G. Smith, M.D., Granger.

Dr. Pearson made an exhaustive presentation of the subject of "Orbital Abscess." This is a condition that may at any time present itself to the general practitioner. He dealt with his subject in a way to make it of more than ordinary interest to the general practitioner. He believes that these cases should be studied with the aid of the laboratory man, the internist and the eye specialist.

The second paper, presented by Lieutenant Channing G. Smith, U. S. A., was full of practical suggestions concerning empyema as a complication of cases of influenza at the base hospital at Camp Dodge. The important points are that empyema and effusions develop early in the disease; that they are of every variation in size and shape; that they may be found in every point in the pleura from the apex to the base, in the mediastinal region or in contact with the diaphragm; that they are usually surrounded by retaining walls which prevent their upper level from changing with change in the position of the patient. They may be any amount from a few c.c. up to 3000 c.c.

Further, their shape is very peculiar. He cited a case where the effusion was five to six centimeters in width and twenty to thirty centimeters in length, and retained perfectly without any possibility of it changing its shape in response to the change in the position of the patient. He emphasized the importance of great care in tapping and stated that indiscriminate use of the needle may carry the infection to the pleura.

Resolutions on the death of Dr. H. C. Potter were presented by the committee composed of Drs. Lewis Schooler, J. W. Cokenower, and M. G. Sloan.

The proposed inspection for venereal disease and tuberculosis of those who serve food, and the ques-

tion of restraining venereal cases at the city hospital were discussed. A committee was appointed to ascertain the facts concerning the restraint of venereal cases at the hospital with instructions to report to the society at the next meeting.

A committee was appointed to investigate the subject of criminal abortions and report to the society.

Dr. David E. Rouse, the new full-time health officer for the City of Des Moines, made a brief statement of some of the things he wished to accomplish in the health department of the city.

The evening was concluded with a very interesting film prepared by the Army Medical School on the use of chlorinated antiseptics. Dr. Carrell's technic for the use of Dakin's solution in the sterilization of wounds, and the use of all the antiseptics of this group, were presented. It was very interesting and instructive and a fine exhibition of the art of moving photography. The film was presented by John J. Bridgeman, Jr., P.D., under the auspices of the State Board of Health. The exhibition of films of this character should be encouraged. T. F. D.

Your committee on resolutions beg leave to report the following:

#### Resolutions

**"Whereas**, in view of the loss we have sustained by the death of our late brother, friend, co-laborer, and associate, Dr. Homer C. Potter, and the still heavier loss sustained by those who were nearest and dearest to him, especially his family, therefore, be it

**"Resolved**, That it is but a just tribute to the memory of the departed to say that in regretting his removal from our midst, we mourn for a brother who was, in every way, worthy of our respect and regard, a brother of few words, good deeds and ever ready to befriend and assist his associates, as well as the needy, distressed and poor.

**"Resolved**, That we sincerely condole with the family of the deceased, and that this heartfelt testimonial of our sympathy and sorrow be spread on our records and a copy sent to the family."

Lewis Schooler,  
M. G. Sloan,  
J. W. Cokenower,  
Committee.

The Scott County Medical Society met in conjunction with the physicians of Rock Island and Moline on Thursday evening, December 5, at 8:00 o'clock at the Rock Island Commercial Club for the purpose of reaching some unanimous agreement regarding the influenza situation in the three cities.

It is quite remarkable that, under the war conditions, the county medical societies held their own in membership. The following information sent out by one of the county societies is indicative of many, we hope.

"In spite of the war, the membership of the Poweshiek County Medical Society for 1918 was above the usual standard—twenty-four members enrolled.

Towards the end of the year this number was decreased by members entering the service—60 per cent. of the eligible members entered active service, 25 per cent. remaining 'with the colors' January 1, 1919.

"The society has a good balance on hand to start the work financially for this year. Two meetings were held during 1918, and regular meetings have been arranged for this year to be held at Brooklyn, Montezuma and Grinnell on the first Tuesday in June, August and December.

"During the past year a county uniformity of fees has been established by the society, and the co-operation of the profession has been almost unanimous."

Officers elected at a recent meeting of the American Public Health Association: President, Dr. Lee K. Frankel, New York; vice-presidents, Col. John M. McCullough, Toronto; Col. V. C. Vaughn, Washington; Dr. John Dill Robertson, Chicago; treasurer, Guilford H. Sumner, Des Moines; secretary, A. W. Hedrick, Boston; executive committee, A. W. McLaughlin, Washington; C. H. Hastings, Toronto, Canada; Peter Bryce, Ottawa, Canada; J. N. Hurty, Indianapolis; W. C. Woodward, Boston.

Dr. Peter Bryce of Ottawa, Canada, was elected to honorary membership in the association. The next meeting will be held in New Orleans.

#### DEATHS

John Victor Bean, M.D., aged seventy-five; Bellevue Hospital Medical College, 1868; Fellow of the American Medical Association, member of Iowa State and Jefferson County Medical Societies; acting assistant surgeon during the Civil War; lecturer on sanitary science in Parsons College, Fairfield, and city health officer of Fairfield, died at his home January 7.

Dr. Bean was one of the pioneer physicians of southern Iowa, his first location was at Moulton, from which place he removed to Burlington, and located in Fairfield in 1887, where he had practiced continually until a few days before his death, fulfilling his frequent desire to die "in the harness." Altogether his professional career covered a period of half a century, and in his death, Fairfield and Jefferson county have lost an highly esteemed physician.

Dr. William H. Kinnier, one of Dubuque's oldest and most respected physicians, died at Mercy Hospital, Dubuque, in his seventy-fifth year.

Ed Embree, oldest son of Amos E. Embree and his wife Rebecca Stiles, was born at Indianola on the second day of June, 1864.

After graduating from high school, he attended Simpson college. Leaving there before receiving his degree, he pursued the study of medicine at the State

University, where on the sixth day of March, 1889, at the age of twenty-five, he received the degree of doctor of medicine. He later went to the Chicago Polyclinic and pursued post graduate work at three different times. He began the practice of medicine at Patterson, Iowa, but soon moved to Winterset, where for twenty-six years he has been an honored member of the medical fraternity. On February 12, 1907, he was married to Miss Minnie Jencks, of Spencer, Iowa.

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Dr. F. T. Seybert of Council Bluffs has received word of the death of his son, Sergeant Seybert on the battlefields of France. Sergeant Seybert was only twenty years old.

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Dr. L. D. Cramblit died at Lake Andes, November 4, 1918, of pneumonia following influenza.

Deceased was born at Munterine, Wapello county, Iowa, June 29, 1885. His parents moved to Dudley, Ia., when he was a child, and it was at that place he grew to manhood. He graduated from the Albia high schools in 1905, after which he took a four year medical course at the Iowa State University and graduated with highest honors in a class of fifty medical students, graduating in 1909.

He first located at Hedrick, Iowa, practicing there a short time and then moving to Murde, this state, where he purchased a hospital. This building being burned in 1911, he came to Lake Andes the same year and practiced his profession in this vicinity for about two years. He then went to Ethan, this state, for about a year, returning to this city in 1915, where he practiced his profession until death.

On December 18, 1913, he was married to Miss Ruth Barkley, of Kingsley, Iowa.

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Dr. Alice Thomas, daughter of Dr. and Mrs. Sam Thomas of Greene, died in Chicago from pneumonia, following an attack of influenza.

She had been helping care for the sick at the hospital there, when she contracted the disease.

Deceased was a resident of Greene until she took up the study of medicine. She spent a year in Africa as a medical missionary, returning about a year ago.

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Word has been received of the death of Dr. Leo K. Oren, who was a surgeon in the United States Army in France. His death occurred October 9. He was a former Benton county boy, having spent his childhood in Mt. Auburn where his father Dr. S. A. Oren was a practicing physician. He was a grandson of Jesse K. Oren, a pioneer doctor and surgeon of Blackhawk and Benton counties. Before he entered the service he was associated with his father in the practice of medicine at Lewistown, Ill.

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Dr. Edgar L. Bay, son of Samuel and Frances Bay, was born August 25, 1873, in Monroe county, Iowa, and died October 31, 1918, aged forty-five years, two months and six days.

He was graduated from the Albia High School and

St. Louis Medical School after which he located in Eddyville in the practice of his chosen profession.

In 1901 he was united in marriage to Jennie Ewers of Albia who died a year after marriage. He was married in 1904 to Florence Wickham of Sabetha, Kansas.

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Dr. William T. Wright of Denison, died at Ute, December 14, 1918, of pneumonia following influenza. He visited his brother-in-law at Ute who was sick of pneumonia and died shortly after Dr. Wright reached his bedside. The Doctor himself was sick when he made the visit, became worse and died ten days later.

Dr. William T. Wright was born at Lewes, Delaware, September 1, 1856, a son of William and Rachael Weld (Smith) Wright, both of whom were natives of London, England. He came with his parents to Waverly, Iowa, at the age of nine years and was reared there and in Nashua and Denison. He attended the public schools and the academy in Bradford, later entering Kenyon college, from which he was graduated in 1878 with the degree of A.B. He then taught school for one year in Crawford county, after which he matriculated in the medical department of the University of Michigan at Ann Arbor, graduating in 1882 with the degree of M.D. He began practice in Denison, but afterwards practiced one year at Ute and six years at Vail, then returning to Denison, where he achieved more than the ordinary measure of success. For twenty-eight years Dr. Wright engaged in practice at Denison and in the time named few men have been more closely identified with the progress of the city. He acquired an enviable reputation and was one of the leading practitioners of the state.

On October 22, 1891, Dr. Wright was united in marriage to Miss Florence M. Brigham, a native of Boston, Mass. The wife departed two years ago. Three children were born to Dr. and Mrs. Wright, namely: Winifred Weld, Alma Lucille and Alice Edna, all of whom are left to mourn the death of their father. Two brothers survive, Leighton and Alfred, both residents of Denison.

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Dr. James A. Carson of Maquoketa, was born in Stenbenville, Ohio, May 13, 1844, his boyhood being spent at the home at that place. He acquired his education in the public schools and in Madison College from which he graduated in 1861. April, 1862, he offered his services to his country enlisting in the 97th Ohio Volunteer Infantry. After the battle of Atlanta his regiment had been reduced to a mere handful of men whereupon it was consolidated with the 61st Regiment and 176th Regiment and with this command Dr. Carson served until the end of hostilities. Five months after the consolidation of these units he was commissioned lieutenant and later captain, subsequently being made aide to General D. E. Stanley, being mustered out of service September 14, 1865.

On April 5, 1866, he was united in marriage to

Sarah A. Branager, they going to Pennsylvania where they remained until 1868 when they came West to DeWitt where the Doctor worked at various occupations, going then to Benton county and there engaging in farming. In 1871 he disposed of his farm interests and four years later began the study of medicine graduating from the Hahnemann Medical College of Chicago in 1878. His first location as a professional man was at Grand Mound where he began practice prior to the completion of his college course. Following graduation he came to Maquoketa in 1878, since which time he has enjoyed a large practice up until ill health overtook him.

Homer Curtiss Potter, M.D., died suddenly at his home in Des Moines on the evening of December 24, aged eighty-four years.

Dr. Potter graduated from the Eclectic Medical Institute, Cincinnati in 1855. Immediately after his graduation, he located in Des Moines associating himself with his father-in-law, Dr. A. Y. Hull. After a period of one or two years' practice, he removed to Nebraska remaining one year when he returned to Iowa locating at Vandalia, Jasper county. He there controlled a large and lucrative practice for a number of years. Upon the division of the Keokuk and Des Moines railroad, he removed to Prairie City, practicing there for twenty-five years, he came to Des Moines, about the year 1883, where the remaining years of his life were spent in the practice of medicine up to the time of his death.

Dr. Potter was one of the pioneer physicians of Iowa. He was a genial, companionable gentleman, a good student, and a very pleasant man in all the walks of life. He was also a success financially, and left a large estate to his wife.

There were few men that conducted as large and successful a practice as did Dr. Potter. It was said of him that, during his practice at Vandalia and Prairie City, he never sent out a statement of account to a patron, and yet he was one of the most successful collectors among the physicians in that locality. His manner of approach was as genial and pleasant in the collection of a bill as was his conduct in the sick room or with his patients in his office. There were few men who could retain his patients a greater length of time than Dr. Potter. He was a Fellow of the American Medical Association, a member of the Iowa State and Polk County Medical Societies.

The Polk County Medical Society at its regular meeting on Tuesday evening, January 28, passed resolutions of condolence for his family and expressed their high opinion of him as a man and physician, and regretted exceedingly the loss of so honorable a member of the profession.

L. S.

Mrs. Nina Ryan, wife of Dr. Charles Ryan, a prominent Des Moines surgeon, died at the Lutheran Hospital, after a few days' illness, of pneumonia. Mrs. Ryan came to Des Moines several years ago

as a surgical nurse after graduating from St. Luke's Hospital in Chicago, and was a factor in establishing her husband as one of the ablest surgeons in the state. Mrs. Ryan was an active Red Cross worker and charity worker and a member of the Des Moines Women's Club.

Lieut. Julius Shryer, M.D., formerly of Iowa University, is dead in France, a victim of disease. He was in the U. S. Medical Corps. Dr. Shryer's mother, herself a physician and surgeon, is Dr. Amanda J. Shryer of Durant, Cedar county. The lieutenant is the nineteenth Iowa university soldier, known to have died during the war.

Dr. Robert Underwood, son of the late Dr. Myron Underwood, pioneer physician of Eldora, died in France recently, following an illness of pneumonia. Dr. Underwood was in active service on the Mexican border and later went to France where he held a captain's commission. His wife was Miss Katie Edgington and she and two children survive him.

Dr. L. L. Lorenz of Charles City, a graduate of the University, died of Bright's disease, December 3, 1918.

Lieutenant R. B. Yoder of Northwood died recently at Camp Custer of pneumonia.

## MEDICAL NEWS NOTES

One physician cannot sell out his professional business to another and then violate a contract made at the time of sale on the ground that the contract was unethical, the Iowa Supreme Court decided in a case appealed from Crawford county. According to the evidence in the case Dr. F. N. Rowe, a young doctor made a contract with Dr. L. B. Toon to purchase Dr. Toon's business at Dow City. Under the terms of the contract Toon was not to practice medicine again in Crawford county. In the course of time, however, Toon went to Denison and opened up an office. Dr. Rowe then started suit and won, Toon appealed to the Supreme Court and the higher court upheld the District Court.

Dr. H. D. Chamberlin, who has been working with the Medical Reserve for the government for some time, has just returned from Lovalia, down in Monroe, where he had charge of a couple of mining camps in which the "flu" had taken strong hold. When he went there he found over a hundred cases in one camp alone. He stayed with them until the matter was well in hand and the diseases pretty well whipped out. Before going down to Monroe county he was at Grinnell for a few days where he assisted in the work with the Students Army Corps, after which he was relieved by an army doctor which the department sent in.

Dr. E. C. Rosenow of the Mayo Brothers Hospital at Rochester, Minnesota, is urging vaccination against influenza. The physician states that in the vicinity of Rochester more than 20,000 people had been vaccinated and 61,000 were not. The death rate among the inoculated he claims to have been but 10 per cent. to those not vaccinated.

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Dr. Stanley received a message from Dr. W. E. White in charge of the service for Iowa, asking him to go to Paton at once and take charge for the government. It seems that conditions at Paton have gotten beyond control of the local authorities and the United States health service has been asked to take charge.

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Complying with a request for publication of the petition presented to the mayor and board of health by the physicians of the city, asking that action be taken for the care of influenza patients in the hospitals, the petition is printed in full. It was in response to this petition and the recommendation of Dr. G. H. Sumner, secretary of the state board of health, that the Waterloo township board of health took action demanding that the hospitals admit patients suffering from influenza or pneumonia. A copy of the petition is as follows:

Petition by Doctors—To the Honorable Mayor of the City of Waterloo: We, the undersigned physicians residing and practicing in the City of Waterloo, believe that the present facilities for taking care of the influenza and pneumonia cases of this city, are at the present time, inadequate and undesirable for the best interests of those afflicted.

In the other cities of Iowa and throughout the country, the hospitals have generously opened their doors, and have received these cases as patients. We also believe that unless some betterment is made immediately many of the citizens of Waterloo are going to lose their lives from lack of proper care and attention from these sicknesses.

We have tried to find a suitable place for the treatment of these cases, and have found it impossible. We believe that the proper places to take care of cases suffering from pneumonia and influenza, are the hospitals.

We therefore, ask you, mayor of the city, for the benefit of the public health, to take such steps and measures, as may be necessary to induce the hospitals to open their doors to these cases.

(Signed): D. C. Huntoon, Edward T. Alford, Frank T. Hartman, E. F. Stevenson, Edwin R. Shannon, H. K. McCall, C. L. Chambers, W. H. Bickley, O. J. Fullerton, F. W. Porterfield, Harry W. Sigworth, E. W. Ellyson, Bickley & Bickley, E. E. Magee, G. G. Bickley, Edward Molloy, J. E. Ridenour, J. R. Thompson, J. R. Allen, T. F. Thornton, T. U. McManus, D. E. McBroom, G. J. Bennett, C. A. Waterbury, S. D. Smith.

Captain J. M. Walker returned from Fort Riley, Kansas, where he has been stationed since his enlistment in the medical corps. Captain Walker has been discharged from the service, demobilization taking place at both Riley and Funston. The latter place, according to Dr. Walker, will be made a permanent demobilization camp for the Middle West.

Dr. W. C. Witte, city sanitarian, will remain in Des Moines until June 30, 1919, according to instructions received from Washington. He severed his connection with the city December 23, but will continue to handle the state "flu" situation and the work in the extra cantonment zone.

Dr. J. A. Snyder, who was called into the service as a commissioned officer, some time ago, returned to Roland. Urgent need of a physician here, hastened his return to Roland. Although given his discharge for the present, he has been placed in the Reserve Officers' Corps.

Captain R. R. Morden, formerly a Des Moines physician, returned Monday from Camp Crane, Allentown, Pa., with an honorable discharge. He expects to resume his practice here at once.

Dr. F. T. Scanlan is home from Ft. Riley, Kansas. After Christmas he goes to Chicago to take a post-graduate course.

Dr. Walter L. Bierring has returned from New York, Chicago and Washington, where he has been attending the national board of medical examiners.

Major Frank Love of the Iowa field hospital unit, arrived in Des Moines from Fort Riley. The major has been transferred to the base hospital and expects to be retained in the service indefinitely. Other members of the hospital corps expect their discharge before the holidays.

Dr. and Mrs. C. F. Watts have moved from Millersburg to Williamsburg.

Captain George Middleton, city health physician of Davenport, was mustered out of service at the request of influential citizens of Davenport, to assist in checking a serious outbreak of influenza in that city.

Captain W. H. Worley of Nodaway, stationed at Fort Riley, has been honorably discharged and returned home.

Dr. L. A. Hopkins, who recently received an honorable discharge from the United States service, has located in Grinnell.

Good news from the bedside of Dr. G. C. Skinner, captain in the Army Medical Corps, in France, is to the effect that he is recovering, after suffering from shell shock and wounds, incurred during the fierce fighting since he entered the front line, last spring. He is in a Parisian hospital.

Dr. Clark Lauder of Grinnell, who has been in camp at Fort Sam Houston, Texas, has received his discharge and returned to his home.

Lieutenant L. E. Shafer of Walcott, who was wounded and gassed at the battle of Argonne Forest,

has been sent to the government hospital at Denver. While in the hospital in France he was decorated with the Croix de Guerre. Lieut. Shafer said that he met few he knew during the year he was over there, not more than a dozen, and he says that it did make him feel good as the transport he came home on steamed up the Chesapeake Bay. Lieut. Shafer's work was with the Iowa and Alabama troops of the Rainbow Division, and of them he says: "They never retreated, and none of them was taken prisoner." The so-called Argonne forest is no dense forest with underbrush, but wooded hills and open valleys, over which the Allied troops had to charge in the face of machine gun nests which could so easily be located at the many points of vantage. The first American division went into line on September 26 and the Rainbow Division relieved them on October 9, remaining in line until October 21. The Huns had put in their best divisions, but they could not stop the Yanks. Some of his work was in a big hospital back of the lines, where 2,500 patients could be cared for. But he worked much in the dressing stations right up at the front lines and at times had his dressing station even in advance of the front line, between it and the advanced outposts, because he knew the boys would advance. The Argonne fighting was not trench work, but mostly open warfare. The Germans had occupied that territory for four years and one was unable to tell just what it had been before the war.

Dr. Domingo Samonte, a Filipino alumnus of the University of Iowa, has received distinction in his own islands by being appointed provincial doctor of the large province of Ilocos Norte. Dr. Samonte came to this country in 1909. To pay his expenses through college he worked as a cook in a private family. He received his degree of doctor of medicine at the University in 1916. Jaun Valdez, a university student from the Philippines, declares that Dr. Samonte is entirely responsible for the suppression of smallpox and dysentery in Ilocos Norte. He is now in charge of the health of the entire province.

Captain John H. Peck has received notice that on the eleventh day of September he was promoted to the rank of major, Medical Corps, United States Army. Major Peck, has been the tuberculosis specialist at the base hospital at Camp Dodge since October 1, 1917. Previous to that time he was tuberculosis examiner at Ft. Des Moines.

Dr. McCauliff received a captain's commission in the medical department of the army and left this city late in August, going from here to Camp Dodge. He was later transferred to Camp Sherman, Chillicothe, Ohio, from where he was sent overseas.

Phillip H. Patchin, so far as known, is the only Iowan in the presidential party. He was born and reared in Des Moines, his father having been a pioneer physician. He began newspaper work there and later achieved a national reputation as a writer in New York and Washington. For several years he has been identified with the state department and

goes to Paris as confidential assistant to Secretary Lansing.

Lieut. Roy J. Quick, 1702 Ross street, arrived in Sioux City on a ten-day furlough after more than a year in France. Lieut. Quick was a member of the 33rd Division, One Hundred and Thirty-second Infantry, a unit which was brigaded with the British Army near Albert. Just prior to the opening of the British drive, he was transferred to the 4th Division, Forty-seventh Infantry, and sent to the American front northwest of Verdon. He participated in the American drive along the Muese river. Lieut. Quick was ordered to return to this country and act as an instructor at Camp Dix, but upon his arrival there found that the armistice had been signed and that the war was all but over. He then was ordered home.

A letter received by Mrs. Wilbur S. Conkling from her husband Major Conkling, formerly attached to the 168th Infantry, indicates that the Des Moines officer now is on German soil. The letter was written in a little town close to the Belgian boundary line, as the Major was on his way to German territory. In his letter the officer says he believes that he will be overseas at least another year. In July, 1917, he said he thought he would be over there two years, and he says in his letter that he believes that statement will come true.

Dr. Danile Clarence Steelsmith, chief of the University of Iowa health department, will not accept the post of health commissioner at Des Moines. Dr. Steelsmith a former practitioner of Melvin, Iowa, and a health officer of various important cities in the last decade is an alumnus of the College of Medicine, S. U. I., class of 1902. His loyal determination to remain at Iowa City and with the university is gratifying to his friends.

Dr. Roy Sommers, formerly of S. U. I., is with the 322nd Signal Battalion in France, and is safe and sound, he writes, after going through the horrors of Belleau Wood, Chateau Thierry, and many other battles. He missed the Sedan, however.

Captain D. J. Gallagher, of Iowa City, has been made a major. He is with the army of occupation in the 214th heavy artillery.

Note from Major W. S. Conkling from Luxenberg: About June 10 I was taken away from the 168th Infantry Regiment and placed in charge of the four field hospitals of the 42nd Division (director of field hospitals). About August 29, I was made commanding officer of the 117th sanitary train which includes the four field hospitals and four ambulance companies and consists of over 950 officers (medical) and men besides fifty-three motor ambulances, thirty-six Pierce Arrow trucks, twelve horse or mule ambulances, horses and mules, motorcycles, etc. So you see I have some little family to look after, besides caring for the sick and wounded.

Dr. W. S. Grimes of Wapello, one of the best known physicians in Iowa, retires because of ill health after forty-five years active service in the profession at Wapello.

Dr. Harry A. Cobb has been promoted to a captaincy in the Medical Corps in France.

Captain C. S. James assigned to oversea service reached Hoboken when the war closed. He was honorably discharged and returned home.

Captain J. O. Ganoe returned to Ogden from Fort Leavenworth, Kansas.

Dr. M. J. Moes, stationed at Camp Greenleaf, Ga., has been discharged from military service and will return to this city. He will resume practice in Du-buque.

Captain Javorsky has been honorably discharged and returned home to Belle Plain.

Word has been received in Rockwell City to the effect that Dr. Clyde N. Maughan, of Rockwell City, who joined the army last summer, was seriously wounded in France on November 3, 1918.

Dr. H. J. Jones, now serving in France has been commissioned a major. Dr. Jones has been a captain in the 92nd Division, that took part in the famous drive against Metz.

Dr. Dorsey, well known in Clarion, has received honorable discharge from the country's service and located at Fort Dodge with Dr. Saunders, one of the oldest and most successful physicians of that city. His family will join him in the near future.

Lieut. H. A. Housholder has arrived home from Camp Kearney, Cal., where he had been in service with the medical corps of the army. Lieut. Housholder went to Ft. Riley and from there to the California camp. He has resumed the practice of medicine at Winthrop.

Dr. G. T. McDowell, who has been in camp at Fort Riley, Kansas, has returned to Gladbrook.

Dr. W. J. Findley has been appointed local surgeon for the C. & N. W. Ry. Company at Sac City.

Lieutenant Thomas A. Duhigg has been advanced from junior grade lieutenant in the navy to full lieutenant.

Captain W. C. Newell of Ottumwa has been transferred to the steamer Adriatic as chief sanitary inspector.

Dr. Sawyer of Sioux City, who has been promoted to rank of major, is in command of a base hospital unit at Allentown, Pa.

Captain H. M. Decker has arrived overseas. While no more fighting forces are going over, it is expected that medical units will go for some time, for in many lines their work will continue for a year at least. Captain Decker is a radiologist for base hospital No. 113. He was for some time at Camp Greenleaf, Chickamauga, Tenn., and recently went east to embark for Europe.

Capt. C. T. Lesan, of Mt. Ayr, who was in the service at Camp Chelby, Miss., has been honorably discharged and returned to his practice at Mt. Ayr.

Dr. John F. Peck, of Des Moines, announces his discharge from military service and return to private practice which will be limited to diseases of the heart and lungs.

Dr. Jay F. Auner, of Des Moines, attended the

meeting of the Chicago Dermatological Society, held in Chicago, January 16 and 17.

Dr. O. W. McGrew, of Grand View, who has been in the service for one and one-half years, has returned to his home and resumed practice.

## BIRTHS

Born to Captain and Mrs. Loosbrock, a son. Captain Loosbrock is in war medical service in France.

Born to Dr. and Mrs. L. E. Dawson, twin girls.

## MARRIAGES

Dr. William G. Rowley and Miss Christine Elizabeth Specht, of Sioux City.

## CHANGES OF LOCATION

Dr. Nathan Boggs of New London has removed to Oklahoma City, Okla.

Dr. E. W. Bouslough has sold his property at George, Ia., and has located at Spirit Lake.

Dr. George S. Bawden, of Davenport, has returned to his practice in Davenport after sixteen months in the service at Fort Riley, Camp Lee and Camp Greenleaf in the Urology Department at the base hospitals. Dr. Bawden limits his practice to urology.

During October the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion with New and Non-official Remedies:

Hynson, Westcott and Dunning:

Lutein Tablets, H. W. and D., 2 grains.

Eli Lilly and Company:

Pneumococcus Antigen (Rosenow), Lilly.

## BOOK REVIEWS

### GENITO-URINARY DISEASES AND SYPHILIS

Henry H. Morton, M.D., F.A.C.S.; Clinical Professor of Genito-Urinary Diseases in the Long Island College Hospital. Genito-Urinary Surgeon to the Long Island and Kings County Hospital and the Polheuns Memorial Clinic, Etc. Fourth Edition, Revised and Enlarged. With 330 Illustrations and 36 Full Page Colored Plates. C. V. Mosby Company, 1918. Price \$7.00.

The last few years has shown a remarkable activity in working out the problems in genito-urinary diseases in text-book, monographic and in periodic literature. Ingenious instruments of precision have enabled the patient observer to examine and study conditions in the bladder and kidneys during the life of the patient, and has thereby opened a field of rather exact therapeutic and surgical activity. The movement has been so rapid that new books and

new editions of older books have been revised and reset to keep pace with revised knowledge. Dr. Morton's book has been before the profession during the life of three editions and now a fourth edition appears to bring the latest knowledge to student and worker of surgery.

The first two chapters are devoted to examination and diagnosis of diseases of the genito-urinary organs. There follows a consideration of acute diseases of the organs. Five chapters are given to the bladder and three to the prostate. In relation to the results of perineal and supra-pubic prostatectomy the author believes there is no material difference. In a series of 800 cases, Watson and Cunningham record a death rate of 6.01 per cent. by perineal route, Freyer, personal experience by supra-pubic route, gives a death rate of 7.03 per cent. At the Mayo Clinic in 100 cases in one year equally divided, a mortality rate of 10 per cent. which the author believes is a fair estimate in large clinics where many desperate cases are operated upon. The subject of prostatectomy is considered in great detail and as opinion varies a good deal on the method of operation, this portion of the book will be read with much interest. Five chapters are devoted to diseases of the kidneys. Several chapters to quite a variety of subjects of general interest to the genito-urinary surgeon, including syphilis.

In relation to operation for varicocele, the author reserves operative treatment for marked and troublesome cases only, certainly a safe rule.

#### PROGRESSIVE MEDICINE

A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M.D., Professor of Therapeutics, Materia Medica and Diagnosis in the Jefferson Medical College, Philadelphia. Assisted by Leighton F. Appleman, M.D., Instructor in Jefferson Medical College. Lea and Febiger, New York and Philadelphia, September, 1918. Price \$6.00 Per Annum.

This number of Progressive Medicine contains a particularly interesting review of the literature of the diseases of the thorax and its viscera by Dr. Wm. Ewart. The diagnosis of tuberculosis takes first place. Reference is made to x-ray diagnosis, which is said to about equal physical signs when either of them is taken separately. The technic to be employed is outlined. Treatment by climate receives but brief notice and the value of rest is reviewed in some detail.

An extensive review is given of the differential stethoscope as an aid to the diagnosis of myocardial changes. Dr. O. Leyton brings out the fact that by means of this instrument, that in addition to valvular conditions determined by the ordinary stethoscope, conditions of the myocardium, endocardium and pericardium, may be determined. It therefore follows

that changes in the myocardium may be detected by the differential stethoscope that would by other means of examination be overlooked. It is obvious that an instrument of such delicacy will greatly increase our knowledge of heart sound. It is stated that the manufacture of the instrument requires great care and must be tested out. The value of the differential stethoscope as a means of accurate diagnosis of heart lesions should attract the attention of the physician to an unusual degree. Ewart goes over the application of the instrument, its value, and the criticisms rather extensively.

Several other reviews may be found in the September number of great interest to the physician in relation to the thorax which he could very profitably study; we have rarely had the pleasure to find grouped so much valuable information.

In another section of the book is a review of recent literature on dermatology and syphilis by Dr. William S. Gothiel which includes new preparations of salvarsan.

Dr. Edward P. Davis of Philadelphia presents a digest of recent literature on obstetrics which covers many important and interesting subjects of every day interest to the physician. We particularly note what the reviewer says of the Newborn because of its importance and the sensible way in which the subject is treated.

Diseases of the nervous system is reviewed by Dr. William G. Spiller of Philadelphia.

#### ROENTGEN DIAGNOSIS OF DISEASES OF THE HEAD

Dr. Arthur Schuller, Head of the Clinic for Nervous Diseases at the Franz-Joseph Ambulatorium, Vienna. Authorized Translation by Fred F. Stocking, M.D., M.R.C., with a Foreword by Ernest Sachs, M.D., Associate Professor of Surgery in Washington University. Approved for Publication by the Surgeon General of the United States Army. C. V. Mosby Company, St. Louis, Mo., 1918. Price \$4.00.

This is a valuable and opportune work on a subject but little understood, except in centers of medical investigation. During the war accurate roentgen diagnosis of traumatic injuries to the head was so important that a great impetus was given to the subject. The book before us, however, includes matters not relating to war surgery, but to diseases of the skull and the brain which fall to the surgeon in civil life. Particular attention is given to tumors of the skull and abnormalities of structure and development and diseases of bone structures, etc. Nearly one-half of the book is devoted to intracranial conditions. The translator calls attention to the fact that at the present time all fairly equipped hospitals contain x-ray apparatus sufficiently complete to make helpful examinations of head, skull and brain conditions for diagnostic purposes.

### MENTAL DISEASES—GULICK

For a small publication, the little hand book or compendium, of Mental Diseases, by Walter Vose Gulick, will serve a very useful purpose in the library of the general practitioner or student. This book very briefly outlines the most accepted classification of mental diseases, and affords a brief symptomatology of each type of psychosis. Its chief value will be as a ready reference work on classification for the individual who is not constantly dealing with mental diseases.

The student will find it a valuable memorandum, as an adjunct to his course in mental diseases.

F. A. Ely.

### THE PROTEOMORPHIC THEORY AND THE NEW MEDICINE

An Introduction to Proteal Therapy, Henry Smith Williams, B.Sc., M.D., L.L.D. Member of the National Committee for Mental Hygiene and of the Hygiene Reference Board of the Life Institute. Successively Pathologist to the Iowa State Hospital at Independence and Assistant to Blackwells Insane Hospital. The Goodhue Company, New York, 1918.

This book is apparently an attempt to present a working theory in explanation of many well known facts that are surrounded by mystery, which up to the present we have been unable to penetrate. The book is interestingly written and we sincerely hope the author has solved some at least, of the many unknown problems that lie before us. The advantage the writer has over other authors is that he made the discoveries himself. Just how these discoveries were made we are not informed, except the observations made many times on the effects of injection of foreign proteids in bringing about certain reactions are reduced to definite knowledge by a process of reasoning. The first discovery is the proteomorphic theory, which is said to be a "physiological discovery to the effect that the mononuclear leucocytes are the agents vitally concerned with the completion of decomposing of foreign proteid in the parental system."

Upon this theory is based the "therapeutic discovery that foreign proteins and protein by-products introduced hypodermically constitutes antigens that stimulate responsive activities of the organism of such character as to aid tremendously in the fight of the organism against the evil effect of other foreign proteins of whatever character introduced by pathological processes; including the proteins associated with the bodies of pathogenic bacteria; heterologous protein products associated with defective digestion and assimilation; and autologous proteins associated with the hyperplasia of various organs, including the so-called malignant neoplasus," added to these discoveries is the "discovery that a single proteid or combination of proteins used therapeutically cannot usually produce optimum results, because the system becomes sated or immunized and

no longer gives a maximum response." Dr. Williams has written a book of 300 pages in support of his "proteomorphic theory" which he calls his "discovery." We believe that the future development of medicine lies largely in the working out of a serum and vaccine therapy in which foreign proteids will be important factors. Whether or not, Dr. Williams "discoveries" will be the true explanation of what is scientifically and therapeutically known, or will be known, we are not able to say, however, the book is well worth reading even if the reader finds himself lost at times.

### REPORTS AND COLLECTED STUDIES FROM THE INSTITUTE OF TROPICAL MEDICINE AND HYGIENE OF PORTO RICO

Vol. I, 1913-1917. San Juan, P. R. Bureau of Supplies, Printing and Transportation.

This volume of 253 pages contains the collected papers of the organization known as the Porto Rico Anemia Commission. The prevalence of parasitical diseases in Porto Rico has been a serious drawback to the advancement of its people. The United States Government granted leave of absence to Drs. Bailey K. Ashford and W. W. King of the Army for the purpose of investigating the parasitical etiology and the curability of anemia from which Porto Rico had so long suffered. Later, this work was taken over by a permanent commission known as the Tropical and Transmissible Disease Service provided for by the Porto Rico Legislature.

### HYGIENE FOR NURSES

Nolie Mumey, M.D., Lecturer in Hygiene, Chemistry and Bacteriology, City Hospital Training School. Assistant Inspector in Surgical Technic, University of Arkansas, etc., Little Rock. With 75 Illustrations. C. V. Mosby Company, 1918. Price \$1.25.

Among other branches of knowledge a nurse should have, it is highly important that she should be trained in elementary hygiene. She should know about sanitary surroundings, how people live to secure health, what should be avoided; how to prevent disease; about contagions and infections. This book is intended to furnish the elementary knowledge on the subject to be supplemented by fuller knowledge, if she takes up special work in this direction.

### MONOGRAPHS OF THE ROCKEFELLER INSTITUTE FOR MEDICAL RESEARCH

Acute Lobar Pneumonia, Prevention and Serum Treatment. Oswald Avery, M.D., H. T. Chickering, M.D., Rufus Cole, M.D., and A. R. Dochuz, M.D., New York. The Rockefeller Institute for Medical Research.

These monographs present interesting and valuable information on subjects of great importance.

# The Journal of the Iowa State Medical Society

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No. 3

## HOSPITAL STANDARDIZATION\*

P. B. McLAUGHLIN, M.D., F.A.C.S., Sioux City

In these rapid revolving days of national strife it seems we are possessed more with the idea of correcting our faults and doing better work in all lines of duty, than in the times of ease and peace. The undertaking of standardization of hospitals is a momentous one, but the crying demand from all parts of the nation for this unification of thought in hospital work, should be a great incentive towards bringing about a rapid solution of the problem.

That there is a crying need for such a revision of the work done in our hospitals especially of the Middle West stands out plainly to the observer, be he doctor or a layman. How many times have you been interrogated by a layman, why this or that is tolerated in the treatment of a case, be it surgical or medical, and how many times have you had to make some flimsy excuse and half answer the question to get away from the inquirer. This is an almost daily happening to men doing hospital work, and who is to blame for this condition that we all admit exists? Is it the hospital authorities, the nurse in charge, or the doctor in attendance? Surely it is not the patient. I think we can place the blame properly without very much investigation, when we say it is the fault of those who do the work in the institution in not being properly organized and agreeing upon a proper fixed standard, agreed to by the entire staff of the institution.

Why do our large mercantile institutions find it necessary to call an organized meeting of the different department heads of the institution once or twice a week, and at these meetings council with the officers of the executive staff. Why do railroad companies call a meeting of their surgeons once a year at some specified point and go over the best and most efficient ways of handling the different cases that are apt to come up under their care? Why is it necessary for any organization to have regular meetings of the board of

directors for one purpose only—to bring about a unification of thought or of standardization of the work to be done by the organization, and to find out what had been accomplished since their last meeting. How it was done, and to correct the mistakes that have happened, and to pass new rules, to prevent them from happening again.

If these precedures are necessary in handling the affairs of corporations and organizations of different commercial affairs, how much more important is it that regular meetings of the staff of a hospital be held to ascertain how work is being done, the successes that have been achieved, and especially the failures that have been made. In hospital standardization, the first step is the standardization of the men doing work in the institution, this being accomplished, all of the rest follows in direct line of their aims and purposes. The hospital board of hospital authorities must set forth a certain standard that has been agreed upon by the staff and themselves and demand that the standard be lived up to.

The American College of Surgeons after a most careful hospital survey of this country, brought about by appointing committees of standardization of each state in the union, and after meetings of the state and national committee a standard was decided upon. These standards should be adopted in their entirety by hospital boards and rigidity enforced by the staff, as they are fundamental to creditable work in a hospital. They are as copied from bulletin volume iii No. 3 First Hospital Survey of the American College of Surgeons.

*Case Records*—That the hospital keep in a systematic manner case records of its patients together with a convenient summary of each case, and that it utilize these records in the analysis of its medical and surgical efficiency.

*Clinical Laboratory*—That the hospital provide either directly or indirectly the laboratory facilities which in the science of medicine are essential in the diagnosis and treatment of patients admitted for care under normal conditions.

*Division of Fees*—That the hospital trustee or governing authority in co-operation with the staff

\*Read before the Sixty-seventh Annual Session, Iowa State Medical Society, Fort Dodge, May 8, 9, 10, 1918.

take action definitely to prohibit from all service of the hospital the practice of division of fees.

One of the principal points the American College of Surgeons is trying to impress the profession with, is that they are endeavoring to get at the results of the hospital work rather than at the material equipment. What they want to know, and have made known to all concerned, is the fact as to the care of the patients. These facts, if they are worth considering, must be complete and truthful. In a word, then, the first requirements of the college is that the hospital keep case records as outlined in the bulletin. The second step is that those who practice in the hospital shall meet from time to time in an earnest endeavor to analyze the results of their work and to profit thereby.

Let us assume, for example, that the case records in surgery in a hospital during the past three months, as they come before the trustees and staff, indicate that 6 per cent. of the patients developed infection during convalescence, the facts as to the percentage of infections may be easily determined from properly kept records. But obviously 6 per cent. of infection is a serious indictment of the surgical service. Now let us assume that 90 per cent. of the infected cases were patients of a particular surgeon. It seems reasonable that both the trustees and the staff should take a firm position that either this surgeon discover the cause of the infection and remove that cause, or that he discontinue practice in the hospital.

Further in this connection, questions will naturally arise as to the nursing technique in the operating room. And again, some will ask, are septic and clean cases operated upon, one after another in the same operating room? These are questions that can be very readily decided at a staff meeting and a definite opinion be arrived at and put in force, where if they are simply talked over by two or three doctors operating in the same hospital and not at a staff meeting the troubles are never decided, and soon occur again at the cost of a lengthened convalescence of the patient. Meetings of the staff and trustees should be held at regular intervals—once in two months or three months—or in such other periods as those concerned believe wise. But it is important that the time for these meetings be definitely agreed upon, and it is important that the review of the work done in the hospitals during the period covered, be fearless, accurate and constructive—looking towards improvement rather than merely the finding of fault. The statement is sometimes made in considering this matter that the staff can not be got together—that the doc-

tors would not be present at the meetings if invited. If such a condition is true, it is a serious indictment against the governing authority of the hospital, and against its patients, and if those charged with the responsibility of creating this service cannot with all sincerity get together to consider their own success or failures, the situation is without thinkable justification. The question is often asked—What power has the college to enforce its plans of hospital standardization?

The college has no legal, political or financial power to make demands of a hospital; it desires no such power. It rests its case in the patriotism and common sense of hospital folk, and the medical profession. In the end, too, the whole program must go to the public for its judgment. But only in so far as the program is practicable and right does it merit success or will it succeed. The entire plan of the college is the outgrowth of years of thought, it is simply an effort on the part of the medical profession itself to make swifter progress, to meet and to be worthy of the trust reposed in the profession by the public, and if the profession does not meet this question fairly and squarely the public will soon take the matter in hand themselves, as has already been done in some states, as for example: The practice of division of fees is prohibited by law in the states of Iowa, Minnesota, Wisconsin, Ohio, Alabama, West Virginia, Tennessee and Colorado. In the standardization the college requests each hospital to meet this issue squarely. It asks that by resolution the trustees or governing authority of the hospital in cooperation with the hospital go on record against this nefarious practice, which is nothing more than the buying and selling of people who are ill. An exceedingly fortunate fact in connection with this movement is the standardization both of the medical profession itself and of hospital procedures now in effect in the medical service of the Army and Navy. Here thousands of physicians and surgeons under military exactness are being trained in professional efficiency. When these men return to their respective hospitals they will not willingly accept standards of less merit. The head of the medical division of a great base hospital under recent data writes:

"The government does not expect a man to be perfect and it is very willing to overlook errors of judgment, but it has no patience with errors due to neglect. The records must show in every case that every available resource for making a correct diagnosis and instituting appropriate treatment has been used. There is a great deal that all of us who have had the experience of base hospital work can carry back to our home

work with the greatest profit. Our hospitals will surely be the better for it. How much less will be our embarrassment if we have instituted before the return of these men a proper regime of case records and other hospital work adopted by this plan of hospital standardization."

Our president, Dr. J. N. Warren, said to me the other day: "I believe the time is not far distant when every hospital will be controlled by a licensed system the same as controlled our doctors and nurses. This would be a very fair and just way of dealing with the hospital problem and would assure an absolute efficiency of an institution in its treatment toward the patient."

### A PRELIMINARY REPORT ON THE MESOTENDONS OF THE ANKLE\*

H. J. PRENTISS, M.D., Iowa City

Mr. Chairman and Members of the Iowa State Medical Society—It has been my good fortune to coordinate with the clinical staff of the Medical Department of the State University of Iowa. Many problems come up in the hospital which are left to the anatomical laboratory to solve. One of these problems which has occupied the attention of the department of anatomy has been the mesotendons of the forearm and hand, leg and foot. Our studies are not completed and so this report will be tentative and confined to the mesotendons of the lower extremity as requested by the chairman of the surgical section. As is well known the text-books on anatomy fully discuss the thecae or synovial sheaths containing the tendons of the leg muscles passing to the foot, but curiously enough have omitted a discussion of the mesotendons attaching the tendons to the walls of the thecae. (A mesotendon is a fold of synovial membrane attaching its tendon to the fibrous sheath; similar to the mesentery attaching the gut to the posterior wall of the abdomen, and undoubtedly for the same purpose, *i. e.*, for the support of the blood-vessels, etc., for carrying nourishment.) It is well known that the white fibrous connective tissue composing an adult tendon has very little blood-supply; this is to be expected, as otherwise an overgrowth of these tendons would result with a necessary loss of the flexibility of the wrist or ankle from the mere bulkiness of these adjoining tendons. The blood-supply is so scant, that, as is well known, infective organisms will very rapidly destroy these tendons; yet there is a blood supply sufficient to care for the wear of these tendons,

and, as has been shown by the orthopedist, will, if destroyed by stripping the tendons of their mesotendons, cause an atrophy of them. My purpose therefore is to call your attention to the thecae, tendons, and mesotendons of the ankle-joint by a series of sketches made from dissec-

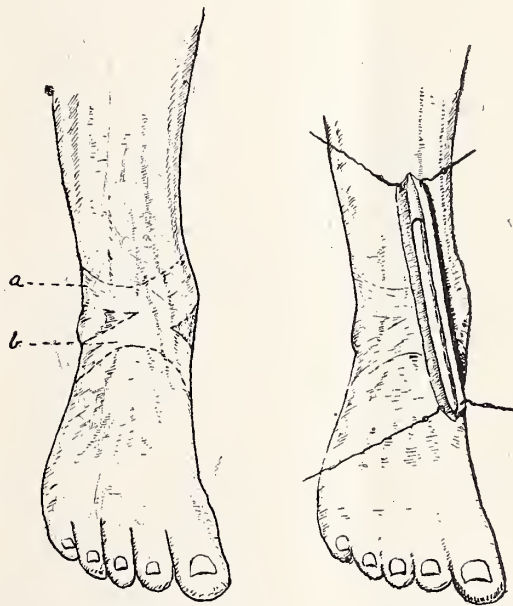


FIGURE 1

FIGURE 2

tions in our laboratory and leave it to Dr. Steindler, head of the orthopedic department of the State University of Iowa, to tell you of their clinical importance. In this series of sketches, the skin and superficial fascia have been removed leaving the deep enveloping fascia of the leg or vaginal fascia as the department likes to call it. This fascia sends reflections around all the muscles, tendons, nerves and vessels and in the case of the tendons form the synovial sheaths under discussion. This fascia also reacts to the stress and strain and develops thickenings which receive special names. In Figure 1 this thickening of the vaginal fascia in the region of the malleoli is called (a) the transverse crural ligament and (b) the cruciate ligament. In Figure 2 an incision has been made in the vaginal fascia over the tendon of the tibialis anticus opening directly into its theca. The tendon rests in its thecal bed but interestingly enough, shows a sleeve of fascia at its proximal limit; apparently this delicate sleeve acts as a stuffing or packing as the tendon works back and forth in its theca. Figure 3 shows the tendon lifted out of its thecal bed, and we see a complete mesotendon attaching this tendon to its compartment. In this mesotendon we see vessels entering at the proximal and distal limits and forming an anastomosis which parallels the tendon. Figure 4 shows the extensor proprius hal-

\*Read at the Sixty-Seventh Annual Session, Iowa State Medical Society, Fort Dodge, May 8-9-10, 1918.

lucis lifted out of its thecal bed, and presenting a complete mesotendon with a small plexus of blood-vessels entering at its proximal end. Figure 5 shows the extensor longus digitorum and peroneus tertius lifted out of their common thecal compartment. We observe a mesotendon com-

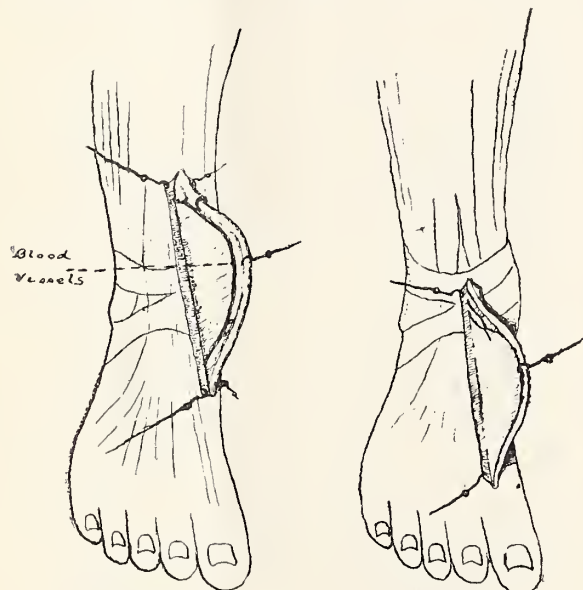


FIGURE 3

FIGURE 4

mon to all the tendons of these muscles and attached to the thecal compartment at the fibular side. Note a group of small blood-vessels entering the mesotendon at its anchorage. The specimen used for the sketch shows a fenestra between the tendons to the second and third toes. We see many specimens where no fenestra ap-

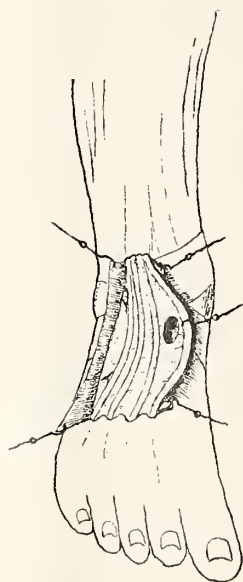


FIGURE 5

pears indicating apparently a retrograde change in this case. We can say that the tendons passing to the dorsum of the foot as a rule present in-

tact mesotendons. Taking the inner group or those passing behind the internal malleolus, we have the tibialis posticus, flexor longus digitorum,



FIGURE 6

and flexor proprius hallucis. Figure 6 shows the tibialis posticus lifted out of its theca; it presents two mesotendons, falciform in shape attached at the proximal and distal ends of the tendons. Observe the goodly blood-supply in the proximal end of the mesotendons. I feel that the large fenestra denotes a retrograde change which will be proven

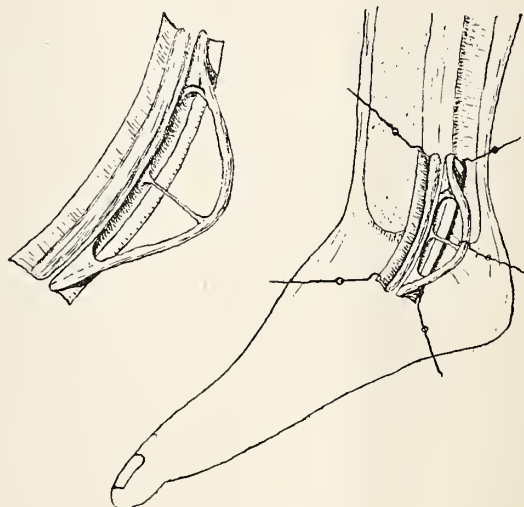


FIGURE 7

perhaps in the study of the embryo. Figure 7 shows the flexor longus digitorum lifted out of its sheath; it presents also two falciform mesotendons proximally and distally placed, and between, a slender vinculus. The proximal mesotendon shows a rather good blood-supply. The vinculus apparently indicates the persistence of a part of a complete mesotendon. Figure 8 shows the flexor proprius hallucis lifted out of its theca as far as the point where it disappears beneath



FIGURE 8

the abductor hallucis; it presents a mesotendon at its proximal end. In the foot as is shown in Figure 12 a second mesotendon presents which is

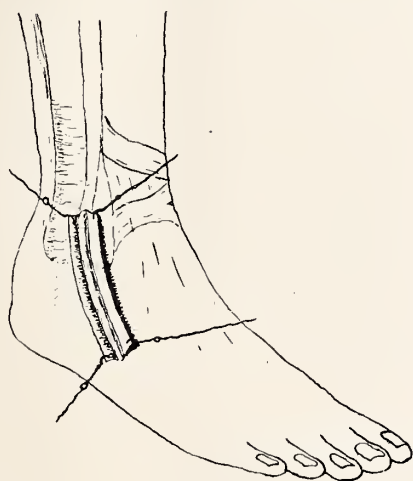


FIGURE 9

however extrathecal. This internal group presents mesotendons with large fenestra. The lateral group or those behind the external malleolus are the peroneus longus and brevis. Figure 9

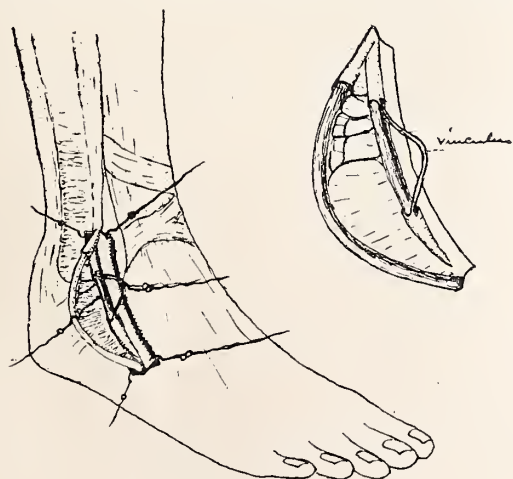


FIGURE 10

shows the peroneus longus superficially placed and resting in its thecal bed. Figure 10 shows the peroneus longus reflected from its theca, thus exposing the peroneus brevis which is lying beneath it, and, for a part of its course, in the same general compartment as the longus. The peroneus longus presents a mesotendon which is continuous

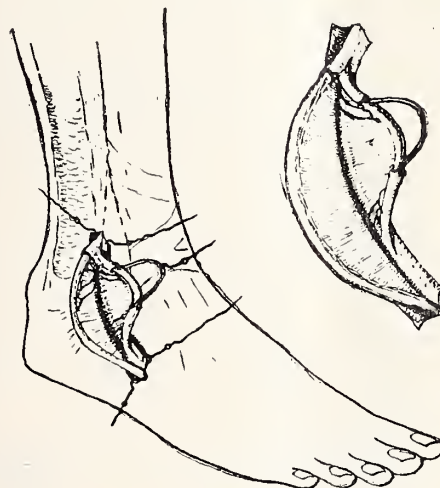


FIGURE 11

though we have specimens showing fenestræ and small vinculi reaching across. In this mesotendon we observe a very rich blood-supply similar to that of the mesentery of the small intestine. In this

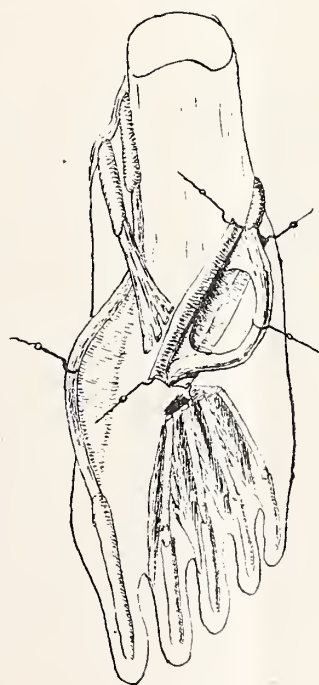


FIGURE 12

same picture we see the peroneus brevis in a theca which is not continuous at the middle. The two parts however are bridged across by a slender vinculus, apparently indicating that in early life it was in a continuous sheath. Figure 11 shows

the peroneus brevis lifted out of its compartment and presenting a continuous mesotendon which is well supplied by blood-vessels. Following the peroneus longus to the plantar aspect of the foot, (Figure 12) we see on its being lifted out of its thecal bed, that it presents two falciform mesotendons. This plantar theca is separate from the lateral theca. The lateral group can show however fenestra in their mesotendons. Figure 13 is a view of the tendo-Achilles viewed from behind. Figures 6, 7, 8, 9, and 10 show it from the side with a powerful mesotendon connecting



FIGURE 13

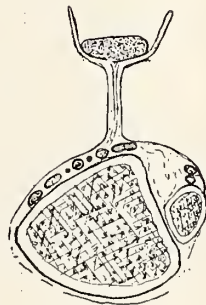


FIGURE 14

it to the deep vaginal fascia. In Figure 13 the fascial sheath is shown lifted off from the tendon on its dorsal aspect; it has almost no connection with the tendon and is almost a theca in character. However this covering is firmly attached to the tendon on its ventral aspect; and from it, runs a strong mesotendon to the vaginal sheath covering the deep muscles, nerves, and arteries of the leg. This firm anchorage to the ventral aspect of the tendo-Achilles is due to the large number of vessels passing into the tendo-Achilles. Figure 14 is a cross section just above the ankle-joint through the tibia-fibula and tendo-Achilles; it shows the powerful mesotendon and how the tendon sheath of the tendo-Achilles strips off from its dorsal aspect. In conclusion I would refer to Dr. Steindler's article, read at this meeting, to appreciate the value of paying attention to these mesotendons in tendon transplantation.

#### Discussion

**Dr. Arthur Steindler, Iowa City**—In presenting to you the technique of transplantation of tendons, I have refrained from going into anatomical details of the meso-tendon, because I am sure that Doctor Prentiss would be a much better authority to speak

about these things than I. Any work that I have done along those lines has been carried out with the help of Doctor Prentiss, and I cannot emphasize enough the great benefit I have received from working in his laboratory. I do not believe that the profession realizes the very close connection that exists between the clinical surgery and very minute anatomical studies. In the clinical treatment of tendon transplantation, nothing has been taught for more than twenty years—otherwise the state of affairs concerning tendon transplantation would not have been as distressing as it has been up to this time. Doctor Prentiss has worked out the conditions of the meso-tendons in a very minute manner, both for the lower and upper extremities. In the various topographical regions of the body, the conditions are so different that it is impossible to make special rules for the treatment of the tendons in general, any more than one can establish a certain surgical procedure for all parts of the intestines, so that it becomes necessary to acquire a minute knowledge of the case in each instance just as Doctor Prentiss has displayed before you. Any work that is done in that line must follow closely the directions given by the anatomist. I want to emphasize the point as it is of interest to the practitioner in general. One might think that tendon transplantation is a thing specialistic in which the general surgeon has no interest, but I am sure that in a few years, many of you will be doing tendon transplantation work just as you are now doing bone transplantation. When bone work first came out, no definite method had been developed, but with definite methods, there came a general acceptance of the work. So it is with tendon transplantation. When a good, sound physiological method is found, developed, and tried many more will begin to do this work. What we need is a clearing house of anatomical and physiological facts, that is, just such work as Doctor Prentiss has presented here today. In closing, I want to again recommend to the profession that it should not consider it a loss of time to go carefully into anatomical details. I do it and have to do it more and more in my work and I find my road to progress would be blocked if I did not continue to acquire a minute anatomical knowledge of the special anatomy of my problems. No man knows anatomy well enough to attack any problem requiring minute technique without making a special study of it and I, therefore, feel very keenly the necessity of keeping in closer touch with the laboratory.

**Dr. M. J. Kenefick, Algona**—I think the profession has not come to appreciate the importance of the work which Dr. Prentiss is doing at the university. Giving the results to the profession here and elsewhere is in reality university extension work. Dr. Prentiss has been willing not only to present this work to the students at the university, but to go out over the state and attend the meetings of the various county societies, giving these lectures and demonstrations on anatomy, the very foundation principles of surgery, combining as he does here anatomy and

physiology. His work is right in line with orthopedic surgery and surgery that is not orthopedic. In this connection I want to mention the fact that there is to be a summer course in anatomy at Dr. Prentiss' laboratory, and I believe that the surgeons of the state ought to take advantage of this opportunity presented by our own university. We should see more of this class of operative technic, getting down to foundation principles, as Dr. Steindler has said. When we left school we thought we knew all that was necessary to know about anatomy and at once proceeded to put our old Gray's Anatomy in the attic, and have never looked at it since. What anatomy we have learned during our years of practice has been learned at the expense of the cases upon which we have done operative work.

**Dr. Prentiss**—What Dr. Steindler has said regarding the necessity of surgeons making a more minute study of anatomical relations is true. Members of the profession to whom I have recommended this work have said to me, "What is the use?—text-books have discussed the anatomy of the body to a frazzle." While the fact is that what the text-books have not touched on is so tremendous that in the future Gray's Anatomy will simply be a pocket affair compared with what is going to be brought out in the course of time, because just this little item, the mesotendons, has not been touched upon at all, and yet it is a subject of vast practical importance in the particular class of cases under discussion. And it is most interesting to see how these ideas are being taken up and utilized. It was most delightful to me to hear Dr. Steindler report his 80 per cent. cures, and we know he is very critical of cures. Anatomy is the most interesting thing there is in the practice of medicine.

## PHYSIOLOGICAL METHODS OF TENDON TRANSPLANTATION\*

ARTHUR STEINDLER, M.D., F.A.C.S., Iowa City

The subject is presented herewith in an effort to rehabilitate one of the operative methods of Orthopedic Surgery which has trembled in the balance between acceptance and rejection, more often than any other method I know of.

One should, I think, approach this question in the same manner as other surgical problems are approached. What one must know first is whether or not the method embodies a physiological principle which is well established and readily demonstrable. Here, then you have the broad physiological fact upon which to base an operative method. Then one should know secondly, what the conditions are that must necessarily be provided in order that this physiological

fact might be applied to the clinical situation; here you have the restrictions placed upon clinical application. In applying to the problem of tendon transplantation I may state first, that it is a fact beyond all question that a tendon might be removed from its insertion to another point of insertion and yet act entirely physiologically with voluntary muscle action bringing about the different mechanical effect from the one originally attending to its action. But on the other hand it must be noted with the same emphasis that one cannot deal with a tendon in this manner without any restriction; one cannot transplant any tendon under any circumstances, in any direction, under any tension and over any route one might choose.

This may seem to us now an obvious and self-evident truth. But one has only to follow the literature to realize that errors were constantly committed on the side of a too unrestricted use of the method and undue expansion of its indications. At first, the mechanical side alone was considered. Vulpius devised 116 operative procedures for the foot alone, all based on mechanical considerations.

The failures attending this tendency awakened the profession to the fact that many other elements must enter into the question aside from the mechanical, and the one of general surgical technique.

So then, gradually, proper attention was paid to proper anchorage, proper selection of muscles from the points of muscle dynamics and muscle synergism; to proper muscle tension; finally also to adequate period of fixation after operation and to proper after treatment.

Here the matter stood up to a few years ago, with the result that tendon transplantation undoubtedly gave better results than before but was still a somewhat doubtful undertaking; many prominent orthopedic surgeons were not, and are not yet, convinced of its practical value.

A year ago Biesalski and Mayer added very considerable to the solution of this problem by their work upon the gliding apparatus of the tendon and the reconstruction of it. This hitherto neglected factor is beginning to draw attention with the result that the reconstruction work of the tendon sheath is now taken up in a rational manner. In this way formation of adhesions is avoided and better function of the tendon secured. Sometime ago I took the occasion to review my cases of tendon transplantation with the discouraging result that about 75 per cent. or 80 per cent. of operations performed by the old method proved to be failures. On re-operating two of these cases I noticed a decided degeneration of the implanted tendon. This has caused me

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to pay more attention to the preservation of the nutrition and vitality of the tendon, as being a further essential for satisfactory action of the transplanted tendon.

In seven lantern slides I will be able to show you the nutrition of the tendon of the long muscles of the foot is carried on largely by way of the mesotenon to which the tendon is attached. This condition varies very much with the different tendons of the foot and ankle and proves to be entirely different in the tendons of the hand.

Dr. Prentiss has already shown you in detail the anatomical condition of the mesotenon of the tendons in question and I shall content myself with showing you a few slides and demonstrating the main anatomical facts.

(Slides showing the tibialis anticus, extensor communis, peronei, tendo-achilles.) Now, in making the operative procedures, subordinate to the necessity of leaving the tendon nutrition intact and of refraining from injury to the mesotenon, all former operative plans had to be abandoned in so far as they carried with it a displacement of the tendon beyond the short distance which the mesotendineum fold would permit. This has left me the following problems only, applicable to the condition of the foot:

1. Substitution of tibialis anticus by the extensor longus hallucis.
2. Substitution of the tibialis posticus by the flexor hallucis or flexor communis.
3. Substitution of the tibialis posticus by the peronei.
4. Any combinations of plans 1, 2 and 3.

#### I. Substitution of the tibialis anticus.

A curved incision is made over the dorsum of the foot below the annular ligament with the convexity toward the tibialis anticus and its insertion. The adjacent sides of the tendon sheaths of both muscles are opened according to the technique of Leo Mayer, the edges are united with fine catgut sutures to form the floor of the common compartment for both tendons. Then the extensor tendon is severed at the level of the metatarso phalangeal joint, carefully avoiding damage to the mesotenon. The tendon is then anchored periosteally to the insertion of the tibialis anticus and the two tendons are sewed together side by side with fine catgut for a distance of two or three inches. Then the far sides of the two individual tendon sheaths are closed over the united tendons, forming the roof of the common compartment. The mesotenon has been kept intact, as its width amply permits the shifting of the extensor tendon to the site of the insertion of the tibialis anticus.

#### II. Substitution of tibialis posticus.

A curved incision is made behind the inner malleolus and a similar technique is used in reconstruct-

ing a common compartment, after the common flexor or long flexor of the toe has been anchored to the insertion of the tibialis posticus and the muscles have been united side to side. There is the disadvantage arising from the opening of the fibrous sheath of the tibialis posticus muscle, being the inner malleolus, the reconstruction of which sheath being more difficult and fraught with danger of adhesions.

#### III. Substitution of gastro-soleus muscle.

An incision is made on the outer side of the leg between peronei and tendo achilles deviating toward the insertion of the latter. The fascial sheath about the tendo achilles and the bone sheath of the peronei are opened in the same manner as described above, and the floor of the common compartment is made. The peronei are severed one inch below the tip of the outer malleolus and anchored to the insertion of the tendo-Achilles. The muscles are again attached side to side and the roof of the common compartment is closed over them.

Dr. Mayer has worked out a very ingenious method of tendon sheath exchange, in which the tendon sheath is not split but the transplanted tendon is slipped into it through a small opening. But I have never found any difficulty in preparing a smooth floor for the tendons to glide on and little difficulty in closing the sheath, over them. After all, it is the adhesion on the under side of the tendon which mostly interferes with its free motion.

After operation the leg has to be fixed in plaster in proper overcorrection. I am lately inclined to extend the fixation period in cast (preferably) or plaster splint to one year or more.

Up to March, 1918, this method has been applied in thirty cases from seven to twenty-three years of age suffering from paralytic deformities for periods varying from four to fourteen years. The time of post-operative observation varies from two months to sixteen months. Eighteen cases have been observed more than ten months. Twenty-five cases more than six months.

The following tables shows the cases grouped according to the different operative procedures.

**Table I.** Substitution of tibialis anticus alone or tibialis anticus and posticus. Twenty cases. Of these sixteen show good tibialis anticus action both in regard to extension and adduction. Four cases show only extension action. In no case the transplanted muscle failed to act altogether.

**Table II.** Substitution of gastro soleus muscle. Two cases. In both cases good active flexion of the foot was obtained.

**Table III.** Combination of substitution of tibialis anticus or anticus and posticus with that of gastro soleus. Eight cases. Extension, supination and flexion action six cases. Extension and flexion but no supination two cases.

Considering as positive results only those cases in which all desired movements could be distinctly demonstrated and could be carried out voluntarily and with sufficient force, we have positive results in thirty cases as follows:

Group I. (20) 16 cases.

Group II. (2) 2 cases.

Group III. (8) 6 cases. Total 24 cases 80%.

Although the muscle action gained by transplantation was not satisfactory in six cases—20 per cent., it must be stated that entire lack of action of the transplanted tendon was never encountered. Comparing these results with those obtained before the physiological method of tendon transplantation was adopted, I cannot but conclude that the results are due mainly to two factors:

1. The proper regard for the gliding apparatus of the tendon, according to the investigations and technique of Drs. Biesalski and Mayer.

2. The integrity of the mesotenon preserving in this way the nutrition and vitality of the transplanted tendon.

In conclusion I wish to demonstrate on the screen some of the results obtained in cases of this series.

#### Discussion

**Dr. J. W. Cokenower, Des Moines**—I heartily commend the paper just read, the author has brought out a technic which a few years ago was not thought possible, and while not perfected yet, is sufficiently practical and its clinical end results have proven that it is no longer an experiment. Hence there is absolutely no reason why so many paralytics and cripples should go around over the country. The Doctor did not have time to mention a few thoughts which I will endeavor to inject. First, in order to decide what is best to do in a given case, it is absolutely necessary to know what you have to contend with. In endeavoring to do that, we must ascertain whether the tendons are contracted, whether they are able to extend and counter-extend. And one should have a musculo-meter, which enables one to measure the power of a muscle or group of muscles. With that instrument I can determine approximately how much strength there is in a muscle, then how much I can depend upon it in splitting the tendon and to what extent I can use it; for instance, whether I can take the tibialis anticus and split it and pass it over to the anterior muscles of extension and contraction, and by this means I know approximately what I can do. All the operations I perform along this line I do perfectly dry or bloodless so that I can see positively just what I am doing. We are all aware that the union of tendons is not as readily effected as in the case of muscles, because the circulation is not as good. This fact prompts me to add that whenever I have opportunity to do so I

make the splitting of the tendon as long as possible, and if I can take a small amount of muscle with it I am always glad to do it. Another timely point the Doctor brought out is that when you have a tendon that is united and cicatricial tissue has formed as a result of that union, as soon as the tendon and cicatricial tissue become adherent then you have lost the gliding motion of the tendon, which the author has told us how to correct. I have never carried correction out to the extent he mentions, but what I have done has been the same as in knee and ankle joints when minus the proper articulating surfaces, put in fascia or muscle or some kind of material to assist in making a joint. You can do the very same thing with a tendon by supporting it in that way. Through knowing just how much power you have in a muscle, the functions of the foot can very materially be improved. Dr. Steindler was not quite explicit with regard to the after-dressings. It makes no difference how extensive the incision, you can just as well make it twenty-five inches as two inches, for it will heal as quickly and it gives the surgeon a very much better chance to do the work and do it understandingly. But after the wound is entirely closed, if there has been much traumatism to the tissues we can expect some swelling. The character of the case governs the nature of the appliances to be employed, and I would put on a plaster cast anyway, and, as has been stated, split it immediately before it hardens so that I can at any time see if everything is going right. If this operative procedure is carried out I believe the cripples we have from paralysis can be largely reduced.

**Dr. Chas. Ryan, Des Moines**—Just a word in regard to the ideas advanced by Dr. Steindler. I am particularly impressed by them for one reason, and that is the fact of the failures of attempted transplantation that have occurred in the service of one of the orthopedic men of Chicago during my house service there, at which time I assisted him in quite a few tendon transplantation cases. I would like to hear Dr. Steindler bring out the minutiae of detail in his preparation of the receptive bed for the tendon, taking care of the nutrition, etc. While the work of the orthopedic surgeon to whom I refer is absolutely of the highest standard, at the time I had experience with him he did not recognize the fact that Dr. Steindler has brought out. And I do not know of any other orthopedic surgeon that has recognized this fact, and I never could understand just why we did have failure from atrophy and weakening of the tendons after transplantation was done, until after hearing Dr. Steindler's paper and learning of the absolute reversal of successes and failures from the new methods he has introduced this evening. I just want to endorse in the highest terms the work Dr. Steindler is doing because I feel positively sure he has something here that is really worth while in the transplantation of tendons.

**Dr. Steindler**—There were some points brought out in the discussion which I did not have time to mention in my paper. In regard to muscle atrophy

following the attack, it goes without saying that such operative procedures should not be attempted until two or three years after the attack, and possibly later. The after-treatment is that of plaster of Paris casts, later to be substituted by braces. There is nothing so conducive to restoration of muscle as rest. The transplanted tendon is a weak tendon, and it has to be nursed very carefully to proper strength. We have extended more and more the use of fixation in plaster of Paris casts. I have had from six to eight hundred cases of infantile paralysis, of which one hundred cases were operated. Of thirty cases operated with the physiological method, 80 per cent. were successful and 20 per cent. failed, which is exactly the converse of what I experienced in the old method of tendon transplantation when 80 per cent. failed and 20 per cent. could be called successful.

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## DIAGNOSIS OF STOMACH DISEASES\*

J. F. STUDEBAKER, M.D., Fort Dodge

The stomach is the most common of all organs complained about by the laity. Many symptoms of discomfort and pain in the abdomen are referred to this viscus. The patient is usually unable and sometimes the physician to definitely associate symptoms with the seat of pathology. No matter what the causative factor is the patient connects his anorexia and epigastric distress with some stomach trouble. If stomach symptoms are severe enough to cause his absence from work for a few days, the case demands careful consideration.

We will try to show in this paper that the history of stomach conditions, except syphilis, carefully elicited, stands out above everything else, above the epigastric physical findings, gastric analysis and the barium or bismuth meal. The history of acute epigastric pain, nausea, vomiting and a disgust for food following errors of diet or the ingestion of some destructive chemical would be the most significant in the recognition of acute gastritis. The long history of periodical attacks of pain in the upper mid abdomen coming on day after day at a definite time with reference to meals and being influenced by food intake would make you think of searching for confirmatory signs of peptic ulcer. A brief history of illness in a patient over forty with no record of dyspeptic symptoms or any sort of serious gastric trouble until three, four or six months ago would strongly suggest to you the advisability of looking for cancer. Vomiting at one time a large quantity containing fragments of food ingested eight

or more hours before are greatly presumptive of dilatation which is nearly always due to pyloric obstruction, the result of cancer, ulcer, cicatrix, adhesions or muscular spasm.

When pain does occur one should inquire into its character, its time and manner of appearance, its duration, its relation to food intake and previous attacks.

Certain types of gastric lesions are said to have characteristic pains as quoted briefly from Behan: "that of gastritis is burning; of spasm of the pylorus sharp and sudden; of ulcer very severe and sharply circumscribed; of perforation sharp and agonizing, and quickly spreads from the site of its original location; of acute dilatation severe and constant and accompanied by symptoms of collapse." It is to be remembered that pain may not be in proportion to the severity of the stomach condition, depending more or less upon the sensitiveness of the individual patient.

Frequently pain is of great significance when the history is complete. With a history of abrupt onset, and no previous symptoms of pain, and without some good reason, sudden sharp pain would make one consider pyloric spasm or perforation. In pyloric spasm the tendency would be to localized, irregular paroxysmal pains and in perforation there would be sharp pain, localized at first, but soon spreading on account of the peritonitis developing, and associated with symptoms of collapse. As stated before, vomiting of indigestible or fermenting substances is direct evidence of acute gastritis, if there is history of previous health being good. A slow onset beginning as distress and gradually growing until it becomes a pronounced pain, especially if accompanied by vomiting of dark blood, puts gastric cancer at the head of the list to be thought of in the examination.

The duration of the pain is usually longer in organic conditions than functional disturbances of the stomach. In carcinoma it covers a greater period of time than hyperchlorhydria and pyloric spasm which bear a relation to the ingestion of food.

Other stomach causes producing pain are chronic gastritis, cardiac spasm, gastric erosions, adhesions, peptic ulcer, and so-called gastralgia. These are kept in mind when searching for the causative factor of pain which, in most instances, is the symptom which brings the patient to you for study and treatment.

So the examiner should be earnest and unrelentless in securing the clinical data of a patient's life in chronological order and attentive to the description of his present illness. This is the beginning of a foundation for making a diagnosis.

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\*Read at the mid-summer meeting of the Austin Flint-Cedar Valley Medical Society, Mason City, Iowa, July 9, 10, 1918.

An unintelligent and disconnected history is often worthless and misleading. The individual who studies his own case may color the picture so that it is deceptive. Terms of expression may be poorly selected. Some express all conditions unusual to them by the same terms. A dull pain is a pain. A sharp pain is a pain. As an extreme example, an Italian, knowing only a few English monosyllables, will answer the following questions very much in this manner: "Where are you sick?" "Oh, sick in the bell." "How long have you been sick?" "Oh, sick a long time" (that might mean one week or six months). "How much are you sick?" "Oh, sick like hell." "Now tell me all about your sickness." "Oh, mister doctor, much sick like hell." "What kind of pain do you have?" "Oh, big pain, by God." This is certainly valuable history in working out a possible case of ulcer. Even the unsuspected intelligent will oftentimes talk so meaninglessly in a small circle.

Confusion has arisen when reflex or toxicity of some distant infection produces stomach symptoms of the most marked character. A woman declares that she knows she is having the change of life, that she has had no children for fourteen years, that her mother had an early change also and later died of stomach trouble, and that she is terribly worried since she is just like her mother, having symptoms of vomiting, loss of weight and strength. Seven or eight months later a wriggling baby in its cab completes the diagnosis for all concerned.

The initial symptoms of reflex irritation or an infective process anywhere may be those of the stomach. Pneumonia in children often begins with vomiting and pain in the abdomen.

While the history is indispensable yet the physician must not arrive at a diagnosis until the most diligent examination has been made. The writer in discussing the methods of such examination and what the symptom complex and findings mean, desires to state that he has freely consulted recent contributions to medical journals and works of leading and progressive clinicians with the idea of giving this paper some ring of authority.

The methods used in the study of stomach diseases may be summed up as follows:

1. History, already mentioned.
2. Physical findings. (a) Inspection and palpation of the epigastrium and neighboring portions of the abdomen. (b) Examination of the size and position of the organ by distending it.
3. Examination of the stomach contents. (a) Fasting. (b) After test meals—Regal and Ewald.
4. Röntgen ray.

5. Blood examination. (a) Count. (b) Wassermann.

6. Exploration.

The findings of a general examination should be included, such as emaciation and anemia. I believe it is a good scheme to examine the blood of all stomach cases. It is even imperative in some as will be shown later.

Physical examination of non-malignant lesions of the abdomen is of least diagnostic value because of signs lacking. Inspection, palpation, percussion, and auscultation of the abdomen are not distinctly helpful. Tenderness is so common in the epigastrium that the palpating hand discovers nothing significant unless the tenderness is extremely so, or sharply localized.

When this boil-like circumscribed tenderness is present, it is quite indicative of ulcer. Explorations or operations establish the fact that the tenderness of gastric ulcer in no case points directly to the location of the ulcer.

The best local evidence in the epigastrium is a tumor. If it is hard and nodular and found in an emaciated and anemic person beyond middle life and cannot be removed by catharsis it is almost always due to cancer of the stomach. Ninety-five per cent of epigastric tumors with gastric symptoms are malignant. Adhesions about an old ulcer may produce such a tumor mass. Pancreatic tumors are more deeply situated and liver growths have greater respiratory mobility and more easily felt than cancer. Epigastric hernia has the usual characteristics of hernia—impulse on coughing and soft doughy feeling. A small non-sensitive movable mass disappearing and appearing is characteristic of a palpable pylorus.

Another local symptom to be noted is excessive peristalsis passing from left to right. This means stenosis at the pylorus from whatever cause as cancer, ulcer, adhesions or muscular spasm. Persistent unrest always means obstruction.

Splashing in epigastrium due to sudden quick pressure by the palpating hand means gastric stasis and usually dilatation which may be demonstrated by distending stomach with water through a tube and then withdrawing same and measuring the amount. Anything over 1500 cc. is considered pathological. Failure to get all of the water, of course, reduces accuracy of diagnosis.

The average size of the stomach in the female subject is twenty-seven ounces and thirty-three in the male. There are some interesting facts about increased capacity of stomach. The greatest dilatation may be associated with a nonmalignant pyloric stenosis. The most marked dilata-

tion may prove to have almost perfect emptying power. Intermittent gastric retention is due to pyloric spasm associated with cholecystitis, appendicitis, gall-stones, duodenitis, gastritis in the presence of increased HCL and gastropnoxis. In gastric cancer the emptying power in more than 70 per cent. of cases is retarded no matter where the neoplasm is located.

The stomach analysis is of considerable importance when it is correlated with other data although attempts have been made to belittle it. It should be done in all cases unless there are urgent contraindications. According to our present knowledge the analysis is not a few instances is significant.

Generally stated the absence of free HCL in fasting contents means nothing although most of us have it present. On the other hand the high readings do mean something. Also the absence of free HCL in the test meal deserves sufficient consideration to ascertain the cause.

In recent years much uncertainty arose after finding some diseases outside of the stomach had a definite effect upon the physiology of the stomach. At one time achylia gastrica, which is the absence of combined and free HCL and also ferments and which has a total acidity after Ewald meal of 10 or less, was considered pathognomonic of cancer. But it is now understood that diseases causing atrophy in the gastric secretory glands or producing marked pathological changes in the blood or disturbing the control of the nerves are causative factors of achylia.

M. H. Gross in the American Journal of Medical Sciences gives the best summary of such diseases of anything yet published as follows:

1. Achylia gastrica with destruction of gastric glands are either on the basis of chronic progressive gastritis, carcinoma, linitis plastica, or alcoholic gastritis with cirrhosis of the liver.

2. Achylia gastrica accompanying marked primary or secondary anemias, primary pernicious anemia; the marked anemias accompanying tape worm; the lower acidity and even achylia in syphilis as well as achylia described in chronic rheumatism, gout, and hyperthyroidism.

3. Achylia gastrica of a functional nature. To this group belong the great majority of cases in whom there is a demonstrable disturbance of the vago-sympathetic system; atropine paralyzes the vagus and lessens gastric secretion; pilocarpine stimulates vagus and increases the secretion. Adrenalin stimulates the sympathetic and inhibits the secretion. Not infrequently achylia occurs in the menopause, Addison's disease, or may be the first recognized important symptom of a neurasthenia. The achylia gastrica secondary to gall-stones and appendicitis or

other intra-abdominal disease is based upon stimulation of the sympathetic system.

Pyorrhœa should be added to the above causes. Many dentists consider this a common factor in disturbed stomach physiology.

When pain and anemia are present it is difficult to differentiate achylia gastrica from carcinoma. The Regal meal is an essential aid. The higher total acidity in carcinoma, the organic acids of stagnation, persistent occult blood, and the revelations of the roentgen ray are all important.

The other extreme to achylia or high gastric acidity, has some atypical groupings. It is uniformly found in acute and subacute perforating ulcer of the stomach. Only 54 per cent. of gastric cancer reveal absence of free HCL. Free HCL and total acidity are increased in peptic ulcer, also duodenal, if retention is present, and free HCL decreased in cancer retention, while total acidity is increased. These symptoms of obstruction and organic acids point to malignancy.

High free HCL is present in cases of pyloric spasm associated with subacute cholecystitis, appendicitis and duodenitis.

The Gluzinski test is being used in Massachusetts General Hospital, intended to give more accurate details of HCL and consists:

1. Examination of fasting contents, more than 50cc of evacuated fluid indicate that hypersecretion is present, and this means retention.
2. Examination of meal of white of an egg and water drawn in three-quarters of an hour.
3. Examination one and three-quarters of an hour after small steak and water.

In ulcer No. 3 shows HCL in excess of 1 and 2. The percentages of free HCL in carcinoma of stomach is reversed in the Gluzinski series from that of ulcer.

Some facts may be tersely stated before leaving the consideration of gastric analyses. Food remnants eight or twelve hours after Ewald and Regal meal usually indicate organic obstruction. Marked hypersecretion of 200 cc. or more, in the absence of food remnants, is characteristic of ulcer, most frequently pyloric or duodenal. Hyperacidity is the rule in 60 per cent. of gastric and 75 per cent. of duodenal ulcers. Fifteen to 20 per cent. of cases of ulcer have normal or subnormal acid values. Blood persisting in contents argues for cancer. Sarcinæ mean stasis. Remember that functional states or extra gastric lesions may produce all the above findings. Conclusions must not be based upon one or even several analyses. The real importance therefore, of

gastric analysis is in its correlation with other data.

Persistent diarrhoea in a run down subject always calls for a stomach analysis since 30 per cent. of achylia are associated with diarrhoea. The stomach empties rapidly in achylia due to the relaxation of the pylorus. The administration of HCl increases the tonicity of the pylorus thus keeping the ingested food longer in the stomach. The achylia is the most probable cause of diarrhoea so frequently seen in anemias, particularly pernicious anemia, cancer, nephritis, tuberculosis, some infectious diseases, and even in neurasthenia. It is to be remembered that some perfectly healthy persons present a total and persistent achylia.

Important as gastric analysis may be in some cases, blood examinations for anemias, Wassermanns for syphilis and roentgen examinations for determination of size, position, and deformities of stomach as well as pyloric obstruction with retention, are imperative.

Thus far methods of study and general considerations have been taken up. We now will turn a few minutes to the diagnosis of individual conditions of the stomach covering most of them by the striking points only.

Stomach diseases of children, particularly of infants, do not often involve the stomach singly but are associated with pathological conditions of the intestine. Acute and chronic gastritis are most frequent; and congenital pyloric stenosis, so-called gastralgia, dilatation and ulcer less frequent.

Congenital stenosis is not rare but found in every community, and often too late to correct. In every instance there is a tumor at the pylorus, a dilated stomach, a collapsed bowel and a withered up baby. Differentiate from pyloric spasm on account of prognosis. The symptoms are obstructive. Food is poorly taken and expulsive vomiting usually occurs within three weeks after birth. Peristalsis is seen. Tumor can be felt in 60 per cent. X-ray is helpful in diagnosis. Other wasting diseases must be differentiated.

Acute gastritis is recognized by history of errors of diet or chemical irritations, the acuteness of symptoms and vomiting of undigested and fermenting substances.

Chronic gastritis covers a longer period. Irregularities of diet and habits and passive congestion are significant. The sediment makes the diagnosis.

Thirty-eight per cent. of all cancer deaths in the United States are due to cancer of the stomach. In theory early diagnosis is the most im-

portant but there are no symptoms of early cancer as such.

The story of complaint is very short—perfect health up to six months, four months or three months ago—perfectly well up to that time—no dyspepsia, no epigastric pain. Then the patient complains of distress after meals. Remember that cancer is of short duration. An individual with a long history has ulcer. A patient having cancer and a long history must have an ulcer history.

A clinical diagnosis of cancer is of very little value to the patient since it is made later than the time of any possible help. It would be better to make a mistake on the "side of safety" and operate early than to wait for the symptoms of advanced cancer as anemia, emaciation, achylia, repeated hematemesis, deformity of stomach wall or tumor. Any type of genuine dyspepsia in a person over forty who has never had stomach trouble before is strongly suggestive of cancer. Rule out angina pectoris, nephritis and gall-stones. Then and there is the time to get information first hand. An exploration gently done does no harm. The history, stomach tube, and roentgen ray will usually fail to make diagnosis early enough to make surgery efficient. The Wassermann should be done in all suspected cases of cancer and ulcer.

In the diagnosis of ulcer the clinical history is the most significant. Roentgen examination is next in order of importance. Gastric analysis with increased acidity is suggestive but the determination of the motor function is more important than the secretory function. Physical examination, when revealing a small sharply circumscribed area of marked tenderness offers a clue. Vomiting of blood in association with other symptoms of ulcer would hardly make diagnosis unmistakable. Except for roentgen examination the differential diagnosis in most cases of gastric and duodenal ulcers is well nigh impossible. If there is a history of severe epigastric pain coming regularly two to four hours after meals, increasing with hunger and diminishing with food ingested, better by quiet and especially rest in bed for a few days, if there is occult blood in the stool, duodenal ulcer is presented. When the roentgenologist finds hyperperistalsis of the stomach, deformity of cap and retention the diagnosis is clear.

The story of ulcer has a history of one to twenty years, has slow beginning of distress in abdomen coming regularly so that patient can tell the time of day—sour stomach, gas, in great quantities one or two hours after eating, relieved in one case by vomiting and in another by a large dose of sodium bicarbonate or a small amount of

food or a large glass of water. Pain comes regularly day after day, unless modified by some complication as adhesions to the gall-bladder, hemorrhage, or perforation.

Definite periodic exacerbations are manifest in uncomplicated ulcer in certain seasons as spring and fall in 40 per cent. of all cases. There is a definite daily time of "hunger pain and food relief" during attacks. Between seizures relief is apparent. During these seizures pain is the common and constant symptom. As intimated before, the time and control of pain are of marked significance. In 80 per cent. of simple ulcer the symptoms of pain, gas, etc., are uniformly repeated day after day and show a quite positive relation to hunger and food intake. A small amount of food may relieve and large amount increase distress.

The resources of the examiner are taxed in some cases for an ulcer may be chronic and complicated before manifesting symptoms and may even simulate malignancy.

The hemorrhage of ulcer must be differentiated from that occurring with 2 per cent. of cases of appendicitis and five per cent. of cholecystitis.

The most common diseases extrinsic to the stomach clouding the diagnosis of ulcer are cholecystitis, cholelithiasis and chronic appendicitis. The greatest assistance in diagnosis is the irregularity of pain appearing at an indefinite time and not influenced by food.

The diagnosis of gastric dilatation depends on the vomiting of a large quantity containing fragments of food taken eight or more hours before, the distention of the stomach with water, and x-ray observation. Fermentation takes place because the stomach contents are too long retained.

Syphilis of the stomach is recognized by the history of infection with regard to primary and secondary symptoms, the presence of lesions elsewhere (frequently present in congenital syphilis), upon Wassermann or naguchi reaction, the improvement after specific therapy, and tissue study.

The symptoms of lues of stomach have no conclusive diagnostic value for they may simulate any disease of the stomach, even functional disorders. Subacidity or achylia is usually present. Roentgen signs give evidence of pathology if syphilitic gastritis is advanced as syphilitic ulcer and syphilitic thickening or tumor. The patient is often below cancer age, sick longer than if cancer, anæmic, and ill not in proportion to roentgen findings.

The symptomatology is rather suggestive of ulcer, and gastric analysis and roentgen findings

rather than of carcinoma. The absence of Wassermann and the absence of history of infection, abortion, or sterility do not exclude syphilis.

Tuberculosis of the stomach is even more rare than gastric syphilis. It was encountered only once in a series of 2501 gastric operations in the Mayo Clinic. Resection was done supposedly for carcinoma with partial obstruction.

The clinical history suggests an ulcer or carcinoma. Tuberculosis should be looked for elsewhere, the lungs taking the lead and the intestines following closely. Little was known of gastric tuberculosis before the middle of the nineteenth century.

The diagnosis of stomach diseases could not be covered in detail in this paper. We have tried to make it practical. In closing let us earnestly endeavor to be scientific, as Murphy admonished, avoiding such terms as gastralgia, hyperacidity, gastric and duodenal neuroses, and exercising every means to make correct diagnoses.

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## PARANOIA, WITH SPECIAL REFERENCE TO THE PARANOID TENDENCIES OF THE KAISER\*

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TOM BENTLEY THROCKMORTON, B.Sc., M.D.,  
Des Moines

The time has arrived, it seems to me, when we can assemble and properly arrange some of the evidence pointing to a rather eccentric mental condition of one of the sovereigns, who is perhaps without doubt the most conspicuous and the most powerful of all the ruling and reigning crowned heads in war stricken and war maddened Europe. That Europe is in the throes of the most gigantic struggle ever known to exist on the face of the globe is denied by none. The cause leading to the disruption of diplomatic relations between the various powers now involved in this European conflict, has been variously ascribed to everything from race hatred, economic conditions, jealousy, political aggrandizement, desire for territorial expansion and world wide supremacy, to the fulfillment of Biblical prophecies after their many centuries of latency. This is neither the time nor place, however, to consider the European problem from any of the aspects above mentioned but with the will and pleasure of the Society, I will

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\*Read before the Library Club, Des Moines, the Austin Flint-Cedar Valley Medical Society and by invitation before the Medical Society of the Missouri Valley.

AUTHORS NOTE—In the preparation of this paper, many articles and books of a current nature were consulted. Particular reference, however, was made to Dercum's Clinical Manual of Mental Diseases, and to Morton Prince's Monograph, The Psychology of the Kaiser.

now endeavor to show how the unstable and eccentric nervous make-up of the most conspicuous figure perhaps in all Europe has played a more important role in bringing about and urging on this gigantic struggle than perhaps has been realized by many of us heretofore. Before attempting a consideration of the Kaiser's mental traits, for of him I think it may be safely said that no one has yet occupied a more conspicuous place in this European tragedy than he, it naturally behooves that we consider, as briefly as possible, some of the essentials of paranoia that a better understanding of the paranoid tendencies and eccentricities of this ruler may be had.

The word paranoia was used by Aristotle, Plato and others in the sense of derangement, madness, folly, obstinacy, perversity. It found its way into German literature late in the eighteenth century, but it was Mendel who first gave to the word a definite application, making it synonymous with the systematized insanity of the French and the delusional lunacy of the English writers. As is generally accepted today, paranoia stands for systematized delusional insanity, chronic in type, occurring at mature adult life which is roughly estimated between the ages of thirty-five and fifty years. Although having synonyms such as monomania, partial insanity, primary delusional lunacy, systematized insanity, essential insanity, the term paranoia is better suited to distinguish this special type of mental disorder now under consideration, and being a one word name stands for a definite thing, namely systematized delusional lunacy.

As a matter of convenience, the various forms of paranoia have been grouped under two main heads; first, a form in which the delusions are intimately associated with and dependent upon hallucinations—i.e., *paranoia hallucinatoria*; and second, a form in which the delusions are evolved independently of or in the absence of hallucinations—i.e., *paranoia simplex*. In brief, paranoia roughly resolves itself into a hallucinatory and a non-hallucinatory form. Without attempting to take up any of the various types such as the hypochondrical, self accusatory, mystic, jealous, political or litigious forms, let us now turn our attention to a consideration of the etiology and course of the disease as a whole.

As yet no special exciting cause for this, perhaps the purest form of insanity, is known. That heredity plays a more or less important role, however, cannot be overlooked or denied inasmuch as in 90 per cent. of all cases a history of neuropathy or insanity in the family is obtainable. Women are more often affected than men, unmarried individuals furnish a larger quota than

do these living in conjugal bliss, while not infrequently a history of bastardy can be obtained in a large percentage of cases.

Being a systematized delusional mental disorder, it naturally follows that its symptoms occur at an age when the logical apparatus of the mind has reached the greatest development, and so we find the symptoms of paranoia making their true appearance somewhere between the ages of thirty-five and fifty years, although a paranoid tendency or trend may have been detected in the background of an individual's life during the period of late adolescence or early adult life. That the emotions play no role, whatsoever, in this disorder, as they do in some other types of insanity, needs I feel, no special comment.

In order that the course of the disease might be better followed, three stages representing the progress of the disorder have been delineated; first, the initial period of depression, spoken of as the neurasthenoid or hypochondrical stage, or better still, as Regis suggests "the stage of subjective analysis;" second, the persecutory period, or "the stage of delusional explanation;" and third, the transition to an expansive period, or the so-called "transformation of the personality," which stage is usually coincident with the dementia. In considering the course usually followed in this disorder, one must be guided not only by the various stages through which the hallucinatory types usually pass, but also one must recall that the delusions are systematized, in that they have a logical structure, are logically arranged and co-ordinated, that the affection is of exceedingly slow evolution, that it is distinctly an affection of adult life and that it is life long in existence. As the individual passes through the neurasthenoid period, he not only manifests that he is odd and peculiar in many ways, but he suffers from various obscure visceral sensations, which are clearly hallucinatory in type. Little by little the depression deepens, the hypochondriasis becomes more pronounced, and in looking about for an explanation as to the cause of his condition, the paranoid, unlike the melancholic who believes himself to be the sole cause of his condition and is therefore introspective, becomes extra-spective, so to speak, and attempts to find the explanation of his delusions by looking without himself into the world at large for the causal factor. Gradually the somatic hallucinations are replaced by those of the special senses, and as the persecutory feeling becomes more and more marked, auditory and visual hallucinations make their appearance. As time passes, the delusions become more narrowed in number and present a tendency to fixation. They assume a definite

form, are persecutory in type, and are not only systematized, well arranged and fixed, but they do not change in character. That an individual while suffering under the stress of some imaginary wrong may commit great bodily harm, is not an unlikely nor an exceedingly rare occurrence. In fact court records, especially those in large cities, are full of the histories of crimes committed by paranoics. Among the more noted victims of the paranoic's delusions I need only to mention President Garfield and Mayor Carter Harrison of Chicago. Sooner or later the depressive phase, which in reality represents the first two stages, passes into an expansive or exalted wave and the persecutory delusions give way to those of a grandiose character. The personality gradually becomes changed and the individual conducts himself in his manner of speech and dress as if he were some important personage. He may become haughty and boastful, egotistic to the extreme, weave fantastical delusions of the establishment of a world empire, declare himself the ruler of vast kingdoms, decorate himself as king of the universe, but yet be content to wear his paper crown.

As before mentioned the non-hallucinatory form of paranoia is spoken of as paranoia simplex. Here, as the name implies, hallucinations, if present, play an exceedingly minor role, while systematized and fixed delusions sooner or later are present. As has been pointed out by Dercum "there is a remarkably high preservation of the general lucidity, of the ordinary sequence of thought, of ordinary conduct and will-power of the individual." These clinical facts, coupled with an exceedingly slow evolution of the course of the disease, are characteristics which at once stamp the disorder as belonging to this particular group of mental diseases. There is no single picture, however, which can accurately describe every paranoic. At best, but a general outline can be given of the disease as a whole, while the various forms merely serve as guides to better aid in properly arranging and classifying the different types. It will be recalled, however, that the cardinal mental characteristics of this disorder are the systematized delusions, which sooner or later become fixed in type.

With this presentation, though necessarily brief, of the more salient points connected with paranoia as a disease entity, let us now turn our attention to a consideration of the Kaiser and endeavor to unravel some of the workings of his mind, to strip bare his thoughts from all extraneous material and analyze the tendencies, which to say the least, are distinctly paranoid in character. It will be recalled that the Kaiser

ascended the throne in the year 1888, now thirty years ago. In his very first speech before the Prussian Diet he proclaimed that he was "firmly resolved to maintain intact and guard from all encroachment, the characterized prerogatives of the crown." Let us casually examine some of these prerogatives and determine in a measure just what Wilhelm Hohenzollern was so anxious to keep so well guarded and intact. In the first place we know that the Kaiser is responsible to none but himself for his power to reign. He reigns by his own right, by his God-given right, if you please, and furthermore, it is his prerogative to govern. He not alone reigns, but he likewise governs. In the second place, he appoints his own chancellor to help him govern. The chancellor is responsible only to the Emperor, and since the Kaiser appoints, he likewise can take away; in other words, Germanically speaking, "the Kaiser giveth, and the Kaiser taketh away; blessed be the name of the Kaiser." That Wilhelm has fully asserted this prerogative is well shown by the number of chancellors who have held office since the beginning of the present war. In the appointment of the ministers, the heads of the various state departments, all of whom are under the chancellor, we find a third prerogative, very dear to the heart of Emperor Wilhelm. To be commander-in-chief of the army and to have absolute authority over the forces of the army both in peace and war, as well as the determining of the numerical strength, the organization and the divisional contingents of the Imperial Army, is, however, without doubt, the most cherished of all the Kaiser's prerogatives. His famous declaration as to this prerogative "I am the Supreme War Lord" cannot, psychologically at least, be passed unnoticed.

Turning our attention for a moment to the first prerogative, let us see how the Kaiser explains his right to reign over and to govern his people. Does he turn to the pages of the constitution of his country for his authority to speak as he has so emphatically done? Does the Kaiser think for one moment that his right to rule comes from a Democratic people? No. The Kaiser claims that his prerogative to govern is derived from God, granted by the Almighty to his House, the annointed and Divinely chosen House of Hohenzollern. No people, no constitution, no democracy has anything to do with his right to govern. This right alone is derived directly from God. Listen, if you will, to what he has said concerning this God given right:

It is tradition of our house that we, the Hohenzollerns, regard ourselves as appointed by God to

govern and lead the people whom it is given us to rule, for their well being and the advancement of their material and intellectual interests. I look upon the people and nation handed on to me as a responsibility conferred upon me by God, and that it is, as is written in the Bible, my duty to increase this heritage, for which one day I shall be called upon to give an account. Those who try to interfere with my task "I shall crush." I regard my whole position as given to me direct from heaven, and that I have been called by the Highest to do this work, by One to whom I must one day render an account.

That the Kaiser is not entirely to blame for the doctrine of Divine-right as one of the prerogatives of the crown, is perhaps shown by the disposition of his grandfather William I, who, when he was crowned King of Prussia at Koenigsburg, to show he was above the constitution which his predecessor had granted the people, raised with his own hands the crown from the altar, set it on his own head, and announced in a loud voice, "I receive this crown from God's hand and from none other." In referring to this historical incident, the Kaiser, in a speech made at this same place said:

And here my grandfather, again, by his own right, set the Prussian Crown upon his head, once more distinctly emphasizing the fact that it was accorded him by the will of God alone, and not by parliament or by any assemblage of the people or by popular vote, and that he thus looked upon himself as the chosen instrument of heaven, and as such performed his duties as regent and sovereign.

That the grandsire's Divine-right notion struck a responsive chord in grandson Wilhelm's heart is very evident from this speech, but let us now turn back the pages of history and see just when the House of Hohenzollern, and its annointed of the Lord, first entered upon the scene. Determine for yourself, if you will, whether the trumpeter Gabriel heralded centuries ago the coming of the chosen House of Hohenzollern, or whether it was the result of good business principles of the Shylock type among Wilhelm's ancestors that enabled the Hohenzollern House and its descendents to rule as it does today. Listen to the facts: History records that the first ruling Hohenzollern of Brandenburg, Elector Frederick I, acquired his title to the electorate by taking from King Sigismund of Hungary, in 1411, a mortgage on the province which now forms the nucleus of modern Prussia, as security for a loan made that hard up potentate. A little later, Frederick foreclosed the mortgage and took title. Thus we see that the only background for the Hohenzollern Divine-rights delusion consists in the fact that perhaps royal mortgages, like mar-

riages, are made in heaven, and thus they become Divine-rights. So firmly has the Kaiser gotten this Divine-rights doctrine, as well as others cropping out as a direct sequence of such false beliefs, grounded into his very being that he firmly and honestly believes that he has been called by God to perform a great mission on earth. The dream of a Mittel-europa, of a universal "Kultur" patterned after Prussian autocracy, are not mere figaments in the Kaiser's mind, but are the delusional goals which the "War Lord of Europe" and his followers are now striving to obtain.

But let us also briefly consider the Kaiser's mental attitude towards his people from an intrinsic viewpoint. No one who has followed the political situation in Germany during the past several decades can help but be struck with the internal unrest and political turbidity caused by the social democrats. Indeed, some would have us believe that the Kaiser's antipathy for and hatred of this great body politic hastened the present conflict when once the breach was sprung. There can be no question but that the fear of social democracy, of its ever-increasing power, has been more than a nightmare to the Kaiser from the time he began to rule and govern. His ever-increasing dislike for this party, his fear of the consequence should the Democratic reforms prevail, in reality has become a phobia. With the realization of the ever-increasing depth of the tidal wave of democracy, has this phobia increased accordingly, until at present the Kaiser's real obsession is a sub-conscious phobia, a fear of democracy against himself and his House of Hohenzollern. Naturally, any mind so situated as that of the Kaiser's would attempt to explain the whys and wherefores of this phobia and consequently we find that he formulates logical reasons why democracy is wrong and why his own opinions are right, really believing in them, no doubt, as God given.

The civilized and Christianized nations of the world have at last decided that Wilhelm Hohenzollern is not a man safe to be at large. The Herculean task now rests upon the Allied Armies to eradicate once and forever the government of Prussian Militarism that has been built up and nurtured by the deluded "War Lord of Europe." I am not entering a plea of insanity as a means of clearing the foul and blood drenched skirts of the German Emperor from the iniquities he has forced upon innocent people. I have only endeavored to show how by precept and example, tendencies were early inculcated into the Kaiser's very being by his ancestors which have formed the trellis work upon which his mental propensities have trained and twined while the roots of his

thoughts became firmer and firmer imbedded in a soil of delusion and fear, until at last the smoldering embers of militarism were fanned into a violent flame by one who styled himself the "Supreme War Lord," the "Divine-Right Ruler," exponent of the "Blood and Iron" doctrine, erstwhile competitor for honors formerly held by Atilla the Hun, and ranking himself in importance too, if indeed not greater than God himself. History will have much in store for coming generations, but nothing will be blacker upon its pages than the record of the crimes committed by the deluded ruler of the Imperial German Government and his followers.

922 Equitable building.

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#### AMERICAN PHYSICIANS ELECTED TO HONORARY MEMBERSHIP IN FRENCH MEDICAL SOCIETY

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The Societe medicale des Hopitaux de Paris at a recent meeting elected the following American Physicians as honorary members of the society: Dr. Beverly Robinson, of New York; Dr. William S. Thayer, of Baltimore; Dr. Alexander Lambert, of New York; Dr. Simon Flexner, of the Rockefeller Institute for Medical Research, New York; Professor Morton Prince, of Tufts Medical College, Boston; Dr. James T. Case, chief of the radiological service of the American Army in France. At the same time five British physicians were elected to honorary membership, as follows: Sir Bertrand Dawson, Sir Almroth Wright, Sir William Leishman, Sir Thomas Barlow, and Sir Dyce Duckworth.

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#### DEATH OF LIEUTENANT-COLONEL E. F. HARRISON, C. M. G.

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Dr. Harrison was a chemist and before the war he was chiefly known to the public as the author of two works on "Secret Remedies," which had been published by the British Medical Association.

When the Germans introduced gas warfare, the British saw the necessity of establishing a gas defense plan. In this work of gas defense, Harrison was the guiding brain. Not only were the methods employed for the greater part his own invention, but the enormous organization necessary for this utilization, was due to his business capacity and brain power. Only a week before his death in the fifth year of the war was he appointed Controller of Gas Service. The Lancet in commenting on his work says:

"Throughout his work Harrison was actuated by the purest patriotism, and there was never any trace of self-seeking or desire for honours. As soon as he recognized that the war was going to last some years

he threw up his private work and enlisted as a private in May, 1915. With the formation of the chemical corps he was made a corporal in this corps. Almost immediately afterwards, in July, 1915, he was given a commission and appointed to work with a number of other chemists in the R. A. M. College. Here his first duty was to assist in the experiments being made at that time on the improvement of the gas helmet. In September he was appointed to act as head of the chemical department, and twelve months later was made officer in charge of the anti-gas department. When he came to the R. A. M. College the gas helmet had been recently introduced. Harrison, while working on the improvement of this helmet and at securing some standard of excellence in its manufacture, was continually striving to obtain a means of protection, not only against phosgene, chlorine, and similar gases, but also against all possible poisonous gas. The first result of his endeavors was the production of the large box respirator, often spoke of as 'Harrison's Tower,' which was intended only for the use of the special chemical corps. The increasing concentration in the phosgene used by the enemy and the introduction of new poisonous gases made it evident that an equally complete protection would have to be provided for all troops, and experiments carried out by Harrison and under his guidance finally led to the adoption of the present type of box respirator. Having settled upon the type, it was necessary to ensure the manufacture, not only of the chemicals, but also of the multifarious parts of each respirator on an enormous scale. The chemical protection involved first the working out of a method for making permanganate granules. Then it was necessary to discover the best methods of preparing charcoal, the absorptive powers of which may be altered twenty times according to the method of preparation. At first these substances were made by private firms, but their resources not proving adequate to the enormously increasing demands, Harrison organized large factories where the process of manufacture was carried out under his direction. Every one of the parts had to be perfect, since any defect might lead to the loss of life of the soldier. Some idea of the magnitude of the task may be gleaned from the fact that, in addition to 15,000 work people directly under the anti-gas department, there were 120,000 engaged in the manufacture of box respirators. The perfection of the organization and the foresight employed can be gauged from the fact that at no time did Harrison fail to respond to any increased demand, however unexpected. When the Americans failed to turn out as they had expected, sufficient box respirators in time to equip their troops, Harrison was able to supply all deficiencies. In the spring of this year there was much anxiety lest the Italian Army should be knocked out by a gas attack similar to that which initiated the disaster at Caporetto. A sudden resolution was adopted to equip the Italian Army which the British respirator, and within one month Harrison furnished the Army with a million of these respirators."

# The Journal of the Iowa State Medical Society

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## COUNTY AND LOCAL MEDICAL SOCIETIES

We have been thinking about local medical societies, and have been wondering what they are doing. We have heard but little about them lately. We edit the Journal of the State Medical Society and yet we have heard but little about the doings of the county societies. We read several hundred newspaper clippings every month and we learn that.....County Medical Society will meet Tuesday at.....Hotel or hospital to consider important health or medical matters. We begin to figure on what date Tuesday will fall and perhaps find when measured by weeks the meeting was held a month ago, or that.....society met at.....Hotel on Wednesday and had an interesting and profitable meeting. Leading local men and some distinguished doctor from a distance participated in the discussion. There being no identifying date we are not quite sure if these men are still living or had forgotten about the meeting and wondered what the notice was about.

Now we look upon the county society as the unit of medical organization and is of fundamental importance. We ought to publish an account of these meetings, not only the program, but an abstract of the discussions. The profession of the state ought to know who the real men are, what they have on their minds. There are almost 100 county medical societies in Iowa. Why do we not know more about them? We are quite certain that most of them are alive.

Primarily the secretaries are at fault in not writing up the meeting and sending on a copy to the editor (who now has this work in hand) even if the secretary has no typewriter we have a secretary in our office who can make out almost any kind of writing. We want to hear from you, we want to know what you are doing. The fault secondarily, is with the society; do not elect a secretary who is so awfully busy that he has no time to write up the meeting; elect a secretary who has had less than 100 patients to visit every day, a man who is interested in medical affairs. Elect the awfully busy man, president.

We are particularly anxious to get the papers read before local societies. The best papers should emanate from this source. If you make your local society a real unit you will increase your membership and thereby enable us to print more pages. We would like to publish a Journal of 100 pages each month, but when we present the bills for a larger Journal, the board of trustees warns us that we are exceeding our income and we must be careful about expenses. We could easily publish a Journal of 100 pages per month if we could afford it. We have plenty of industry and leisure and willingness, therefore make the editor work to his limit. You can do this by making common cause with the highest class advertisers, who now, and will patronize us. Encourage carefully prepared papers, such as a good report of your meetings and you will increase your membership and we will have plenty of money which will be well taken care of by your board of trustees, Drs. Cokenower, Small and Powers; these men are used to money and know how to take care of it. We shall never be bankrupt while these men direct the financial affairs of the Society.

We want good county society reports; good papers from county societies and a common cause with the advertisers; send your reports and papers to the editor at Clinton.

## THE THERAPEUTIC VALUE OF RADIUM IN GYNECOLOGY

Two valuable papers appeared in the June number of Surgery, Gynecology and Obstetrics on the use of radium in the treatment of inoperable cancer of the uterus; one by Dr. John G. Clark of Philadelphia, the other by Dr. Harold Bailey of New York. Both authors attach great value to radium treatment in inoperable cancer of the cervix. Dr. Clark concludes that radium is the remedy par excellence in inoperable cancer and Dr. Bailey states that: reports from various clinics show that the inoperable cases have a rate of

cure of 15 to 25 per cent. The inference is, that treated by the same technic, the operable cases would show a rate of cure that would be very high. Howard Kelley has prophesied that eventually the cure of the operable class will be raised to 75 per cent. by radium and operation.

Very little work on the radium treatment of cancer of the uterus has been done in Iowa, due in part, no doubt to the high cost of radium, but it is now possible to rent a sufficient quantity from radium laboratories. Attention to this fact will no doubt lead to a greater use of this agent in our state.

We desire to call attention to a paper published in this Journal (July, 1917), by Dr. Powell Johnson of Muscatine who has studied the subject carefully and has had a large experience. We would suggest a reference to this important paper.

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### THE DIFFERENTIAL STETHOSCOPE

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Dr. William Ewart devotes six pages in his review in the September Progressive Medicine to the Differential Stethoscope as an aid to the Diagnosis of Myocardial Changes. Dr. O. Leyton whose paper is under review by Dr. Ewart, cites many instances in which the Differential Stethoscope revealed the true condition greatly to the patient's advantage in that the value of certain heart murmurs were more accurately determined. This observation was made, "It is true that many systolic murmurs heard over the mitral area are not due to mitral incompetence. These have had many names given to them, under the main heading of functional murmurs and that the last thirty years the growing fashion has been to treat them with contempt. Valvular incompetence means a heart with diminished efficiency. Because there are many with incompetence, who are able to lead strenuous lives without discomfort, we are not justified in holding that the valvular lesion is of no importance." The value attached to the Differential Stethoscope by Dr. Ewart and O. Leyton leads us again to draw attention to this valuable instrument.

It is farther stated that "the Differential Stethoscope has to be manufactured with extreme care. Every detail in its mechanism is of importance," and the writer proceeds to describe in detail the construction of the stethoscope.

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### WOUND TREATMENT

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The feature of wound treatment in France that is attracting most attention is primary and delayed primary suture. Rutherford Morrison and Sir Berk-

ley Moynihan seem to have been the pioneer advocates of this method of treatment. Some time ago the Research Society prepared material for discussion before the Red Cross Society in France on the treatment of wounds by suture. Six different surgeons were appointed to the work.

The conditions of treatment were x-ray examinations for foreign bodies; a bacteriological examination of the wound before suture. Each surgeon employed three methods; without antiseptics with P.2. P.P., with ether. The results were; success in 82.9 P.C. failure in 17.1 P.C.

The failures in primary suture were apparently due to two causes; first faulty technic in which dead tissue was not removed and second the presence of streptococci in the wound which were not eliminated. In delayed primary suture; the wound was excised, left open and packed with gauze soaked in Flavine 1 to 1000 and covered with jaconet. Usually on the third day the wound was dressed under anesthesia washed with Flavine and sutured with one failure in thirty cases. All cases were kept under observation until healed. Indications for primary suture; all wounds, other than very insignificant ones not needing treatment, which can be cleansed completely and mechanically within twelve to twenty-four hours after receipt of wound and which can be retained in bed for a period of seven days before being transported by ambulance or train. The principal contraindication for primary suture. Badly shocked patients. Multiple wounds of great severity. Wounds which the surgeon cannot hope to cleanse mechanically. Wounds exposing or injuring large vessels or nerves, large shattering wounds of bone. Wounds already showing active signs of inflammation in which organisms have already penetrated living tissue. In this stage much harm may be done by too free surgery.

Operative technic employed in primary suture, (1) X-ray examination for foreign bodies; (2) Anesthesia; (3) Preparation of skin as for civilian operation, as far as possible fingers should be kept out of wound, instruments used for manipulation; (4) Excision of wound which means the removal of every particle of dead or badly damaged tissue, all fragments of metal debris, portions of cloth and completely detached splinters of bone. The dissection should not be done "en block." The work should be as conservative as possible, no more living tissue should be removed than necessary, skin edges merely trimmed. Good exposure of the whole extent of the wound, sometimes by long incision.

Principles of Closure of Wound (1) No cavities capable of filling with blood or serum; (2) Surfaces should be approximated with as little tension as possible, skin sliding or flap sliding when necessary; (3) Buried sutures to be avoided; (4) Suture material, silk worm preferable; (5) Drainage tubes to be avoided (aluminum bronze wire inserted in a corner of wound).

After treatment of primary or delayed primary suture; (1) Rest; (2) If the bacteriologist reports the

presence of a hemolytic streptococcus, the wound should be opened up at once, all stitches removed and the case reserved for secondary suture; (3) If there is a rise of temperature which lasts more than a day or two the wounded part should be examined and if found infected seriously it should be treated as a secondary case; (4) The important point in primary suture is the possibility of early restoration of function. In the discussion General Cuthbert Wallace complimented the French surgeons on their work and stated that; "In the winter of 1916 and 1917 B.2 P.P. and Carrel ran side by side in the British Army. Gradually B. 2. P.P. ousted the Carrel method in the early treatment.

Later, in 1916 a small experiment on the suture of wounds was started, 1917 is remarkable for the rise of Flavine and those numerous colored plates made up with a greasy base and an aniline dye. "At the end of 1917 we see the excision of wounds coming in more and more. I think now we have come to our senses. People talk about revolution in surgery. It is a return to sanity, a return to ordinary civil practice. You will find that the more war surgery approximates to civil surgery the better it will be. The improvement that has taken place in the wounded is simply due to the fact that one now does what one was taught to do in the days of one's surgical infancy."

Captain John T. Morrison whose cases were of a different character, collected during the ordinary course of evacuation, without any special arrangement for suitable cases being made, 10 2.c. were suitable for immediate suture, of 192 cases, forty-six were cases of delayed primary suture. With reference to treatment before suture Captain Morrison favors the Carrel-Dakin method. Colonel H. A. Bullance with an observation of 1000 sutured cases has had an experience similar to Captain Morrison and holds about the same views. After reading the papers and discussions the thought comes that the apparent conflict of views arises from a difference in conditions, one deals with cases that are seen early, and are treated under favorable environment; and the other deals with cases collected in the course of evacuation that have been seen later and are more seriously infected. In one, the Carrel-Dakin methods give the best results, and in the other excision B.D. P.P. and the Flavine treatment better serves. We take it both methods have certain merits.

A group of French surgeons are enthusiastic in favor of primary suture of war wounds. They hold that if a wound is not infected by the streptococcus it may be sutured primarily and if they receive the proper surgical care they will unite by first intention.

Out of 549 cases 430 were treated by primary suture. Considering the progress of sutured cases; out of 759 sutured patients there were 670 unions by first intention, 47 partial disunions and 37 deliberate or complete disunions. The authors recommend that all cases with streptococcus infection be isolated and specially treated. We must conclude that the essential fact in relation to primary suture is to be de-

termined by laboratory investigation. Surgeons who claim to be able to say they recognize streptococcus by the appearance of the wound without laboratory inquiry are subject to some criticism.

Dr. Royal Whitman in a paper published in the Medical Record for July 13, 1918, speaks of 2736 patients treated at the Hospital for Rupture and Crippled, N. Y. and estimates that from 30 to 40 per cent. of the men examined by the exemption boards presented either actual or potential evidence of weak foot. Dr. Whitman to illustrate the differences presented by the normal and the weak foot says, "When normal feet are placed side by side with the heels and toes opposed, an interval persists between them, caused by the slight outward curve of their inner borders. In this position the line of strain transmitted from the muscles of the calf passes through the center of the leg to the neighborhood of the second and third toes, and the weight is properly balanced on the foot.

"The most important indication of the potential or actual weak foot is the bulging inward so that the two feet when placed side by side are in contact throughout their extent or, if the bulging is more pronounced it is impossible to oppose the heels and toes simultaneously. If the heels are in contact, the toes diverge or vice versa."

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We have received the numbers of volume i. The Medical Bulletin, A Review of War Medicine, Surgery, and Hygiene. Published by The American Red Cross Society in France, 6 Rue Piccini, Paris.

The April number contains the papers and discussions before the Research Society of the American Red Cross in France. At the Institute Pasteur, Paris, March 15, 16, 1918, on Shock and Anesthetic. The first paper is by Major George W. Crile, M. R. C., Traumatic Shock. Major Crile states that if there is no cyanosis, morphine is one of the best agents in the treatment, not merely to relieve pain but as in peritonitis, for deep narcotization.

Lieutenant Alexander, M. R. C., read a paper, Observations on Shock Acidosis. Dr. C. Vincent held that the best treatment of shock on the field was to hold the battlefield, to be stronger than the enemy and to have artillery which silences his, to bring in the wounded speedily. Major Cannon, M. R. C., presented some investigations in connection with associates through four months with the first British Army. Captain E. M. Cowell, R. A. M. C., gracefully stated that we owed the knowledge that acidosis is an element in the condition of surgical shock to Major Crile and Cannon.

Dr. J. L. Roux-Berger read a paper on the etiology and pathology of shock.

Captain O. H. Robertson, M. R. C., read a paper on transfusion with preserved red blood cells. It was stated that since the Lakeside unit arrived in France 320 transfusions of blood had been performed by the surgical staff. The indications for transfusion; (1) Hemorrhage either severe, primary or

early recurrent; (2) Shock; (3) Shock and hemorrhage.

Dr. C. Janssen of the Belgian Medical Corps read a paper on hemorrhages.

Dr. Desplas read a paper on spinal anesthesia. In addition to the original papers noted abstracts from medical journals on various features of shock are presented.

The Bulletin is of particular interest and value in that the observations were made at the war front, under conditions we trust will never occur again.

### THE QUESTION OF FEET IN COMBAT SERVICE

One of the most important considerations for war service is the condition of the feet. Before the United States entered the war and while the National Guard troops were on the border a valuable paper was submitted to the Journal for publication by a German officer attached to one of the Iowa units. After the proof was prepared this gentleman was arrested by the United States Government as a spy and consequently the paper was never published. Now we are able to supply much of the same material from War, Medicine Surgery and Hygiene published by the Red Cross Society in France prepared by Major Joel E. Goldthwaite and Major Robert B. Osgood, consultants in Orthopedic Surgery, American Expeditionary Forces. By Colonel Sir Robert Jones of the British service and Professor Frohlich of the University of Nancy. Major Goldthwaite referring to Pre-Combat Orthopedic divides the work into four classes; (1) Instruction in the proper use of the body in standing, walking, or other activities, so that there is the least possible waste of energy or liability to over strain in the performance of regular duties; (2) Special training by means of drills, or the orthopedic exercises, etc., to overcome bad habits of carriage of body use; (3) Instruction in the care of the feet; (4) Instruction of the stretcher bearers in the use of standardized splints for transport of the wounded.

Major Goldthwaite further observes: Great numbers of men are "scrapped" from the army not because they are sick but because of symptoms which have developed from wrong usage of the body. Once the bad habits are overcome, foot weakness and back strain (the most common results of postural defects) will disappear, for such conditions represent weakness and not disease. Treatment must be carried out on a group basis, so that large numbers can be cared for simultaneously.

**Special Training Battalion**—Men with specially troublesome feet, weak backs, general bad posture, lack of endurance, etc., are sent to this battalion for training. Every minute of the time the fully erect, alert position of the body is emphasized, while every movement involved in special tasks is made from the alert or "attention" position. Four companies have been established in the battalion, with programs of

increasingly difficult planning so that the schedule of the fourth company is only slightly below that required for full combat fitness. Before the final discharge is made the men must demonstrate by involuntary use of the body that the corrected habits of posture have become automatic. With the methods adopted most of the men can not only be saved for the army but between 70 and 80 per cent. of them can be made fit for full combat duty.

Much of the time of the representatives of the Division of Orthopedic Surgery has been occupied in supervising the shoeing of the army. If the common pronation or inward sag of the ankle can be corrected by raising the inner edge of the heel, the normal strength is regained. With markedly spread feet the use of figure of eight marching straps, together with the raised inner edge of the heel, gradually draws the foot together and normal tone ultimately results. For the men of the Special Training Battalion, a shop has been established where 100 pairs of shoes can be balanced in a day and in which the necessary leather foot straps can be made.

Prof. Frohlich expresses the opinion that except in rare instances of serious complications it was inadvisable to operate as all such troubles were compatible with active service or at least with the auxiliary services. Prof. Frohlich says, "Uncomplicated flat foot. The ordinary army boot should be fitted with an entire sole made of cork and with the inside edge raised. The inner side of the heel should also be higher than the outer."

**Valgus, or Weak Ankle**—This is often due to a faulty synergy between the muscles of the leg or tibia and those of the fibula. It may be corrected by walking on the outside of the foot with the toes turned in.

**Arched Foot**—For an excessively high instep a square-toed boot with raised toe-cap may be worn. The sole should be sufficiently hollowed to accommodate the back of the heel, but care must be taken to see that the anterior lip of the hollow does not fill in the whole of the vault of the foot. The thickened tissues of the sole must be treated by ablation in oblique layers without previous softening by liquids, and protection of the painful part by corn-plaster.

**Congenital Club Foot**—In men presenting themselves for military service; this will have been already treated in infancy. When a slight deviation persists, a boot should be used which fixes the foot firmly in a slightly varus position: it should have a cork sole and the heel should be raised a little inside.

**Hallux Valgus** needs wide boots with accommodation inside for the protruding first metatarso-phalangeal articulation. A piece of cotton may be placed between the first and second toes to separate them and the bursa may be protected with a piece of corn plaster.

**Congenital Hallux Varus and Metatarsus Varnus**—The great toe should be held against the two neigh-

boring toes by means of a band of adhesive plaster, and wide boots should be worn with the foot turned slightly inward.

**Lateral Deviations of the Other Toes or Clino-Dactylous Conditions**—The toes should be fixed in correct position by adhesive plaster, or a boot provided with a dorsal pouch for the crooked toe may be worn.

**Hammer Toes**—Square toed boots are necessary, large enough on the dorsal side not to rub against the folded and protruding great toe. The latter may be straightened and fixed to the two neighboring toes by adhesive plaster, pieces of gauze being placed between them. The hard corns attendant on this deformity should be treated by ablation and protection by corn plaster.

**Metatarsalgia: Morton's Disease, or Break-Down of the Instep**—This may be due to inflammation and of short duration only, in which case rest and the wearing of a square-toed boot with a thick sole are all that is necessary. When there is a breakdown of the transversal plantar arch a strip of Velpeau, banadaged from the toes to the ankle, is effective.

**Supernumerary Digits**—If these cause no real inconvenience it is sufficient to wear a boot with a pouch for the supernumerary digit in cases where it protrudes.

**Webbed Toes** never cause trouble in walking and need no attention from the orthopedist.

**Localized Apophysitis or Ostitis of the Small Bones of the Foot**—These are fairly frequent inflammatory lesions in young soldiers, but of short duration. Treatment necessitates a month's rest, mild revulsives and, when walking becomes possible, a boot with a special place for the painful bone.

**Subungual Exostosis**—This may be tolerated with the protection of a hollowed corn plaster and an appropriate boot preventing pressure on the exostosis. In such a case, however, it is better to operate, as a radical cure can be effected in three weeks.

**Onyxia or Ingrowing Toe Nail**—May be treated by the application of strands of thread, dipped in tincture of iodine, which raise the free edges of the nail.

**Corns** should be protected by fenestrated corn plaster or treated by oblique ablation. Little wart-like appearances, which do not protrude but which may be very painful, should be destroyed by touching them at the center with a drop of nitric acid every alternate day till cure.

**Excessive Perspiration of the Feet**—Preventive treatment consists in bathing the feet with a very weak dilution of formol and frequent change of socks. Socks with a ventilation hole in the anterior part of the heel may also be employed.

**Blisters**—To prevent these the boots must be flexible and kept well oiled; the feet also should be oiled before each long march.

## GENERAL GORGAS HEADS YELLOW FEVER COMMISSION

Major General William C. Gorgas, recently retired for age from the office of Surgeon General of the United States Army, has resumed his position as chief of the Rockefeller Commission on Yellow Fever and will soon sail for Central America to supervise the studies that are being carried on there by the Rockefeller Commission.

## MEDICAL NEWS

The board of supervisors of Hamilton county have named Dr. Paul Nikolai, of this city, county physician, at a salary of \$100 per month, and 50 cents a mile in addition for cases attended outside of Webster City.

Evidence taken before the Waterloo board of health versus the Franciscan sisters in an action to compel the sisters to treat patients suffering from influenza in the St. Francis Hospital. Dr. Ludwig Hekton testified that a general hospital was not a suitable place to treat such cases on account of the danger to other patients. Miss Mae Burtch, superintendent of the Presbyterian Hospital, Chicago, testified to the same state of facts. This evidence will not be denied, but what will the poor do in such an emergency; must they die for the want of care on the assumption that some other patient may contract the disease. If cities will not make suitable provision for such conditions some must take certain chances. If the poor who have no suitable homes and cannot provide proper care are taken with the disease, many will die. It is possible that some in the hospital will meet with misfortune. Who must be the victims? It is to the credit of the general hospitals in Iowa that they have without hesitation cared for the influenza patients to their utmost capacity thus realizing an advance Christian civilization.

The Iowa House of Representatives consists of the following callings: Farmers, 44; lawyers, 26; bankers, 9; merchants, 9; insurance and real estate men, 7; editors, 5; doctors, 3; laboring men, 2; students, 1; professors, 1; traveling salesman, 1.

The county hospital proposition at Charles City was lost by an adverse majority vote.

The Mt. Pleasant News proposes that Henry county build a hospital as a memorial in honor of the young men who answered the call for service in the war.

Rock Rapids wants a municipal hospital.

A county hospital, as a memorial to the Montgomery county soldiers and sailors who sacrificed for humanity, is the suggestion of a special committee on memorial appointed by the Montgomery County Chapter of the American Red Cross. A meeting of the township chairmen was held at the Red Cross headquarters at which time the recommendation of the committee was presented.

Lydia Alden Chapter of the Daughters of the American Revolution are now planning to ask for a Clay county memorial hospital to commemorate the work of Clay county soldiers and sailors in the world war.

Dr. David E. Rouse of Des Moines, is taking up with school authorities the question of enforcing compliance with the compulsory vaccination ordinance adopted by the city council last September. It is probable that a limiting date will be set within a few days for compliance with the regulation requiring all school children to be vaccinated. The compulsory ruling was suspended on account of the influenza. Vaccination against smallpox will be again taken up in the city health offices at the city hall Saturday morning, January 25, at 9:00 o'clock.

In Dubuque county, the County Medical Society has proposed to the county board of supervisors that the members of the society will attend the indigent sick for the compensation usually paid the county physician. The offer is one of the many blessings that have come to Dubuque county, especially to the unfortunates of the county, through the recent "stirring up" of county affairs, that resulted in ouster proceedings being brought against the old board of supervisors, who thereupon resigned. In the proposal is a suggestion that the local medical association might consider, if the law permits, as it is the plan of the Dubuque organization to place money received from the county in the association's treasury for the purpose of bringing leaders in the medical profession to Dubuque for lectures and clinics. The plan will put an end to the practice of auctioning off the county's sick dependents to the lowest bidder, who sometimes, to be sure, is a reliable physician, but frequently is a youngster just out of college, glad to avail himself of the opportunity of being assured of money to at least pay his office rent. The arrangement suggested by the Dubuque medical fraternity would put an end to the scandal of putting the county's poor at auction and would assure those unfortunates as skilled medical attention as is demanded by those able to pay for the services, while it would cost the county nothing additional.—Clinton Herald.

Dr. D. F. Fitzpatrick has been appointed to fill the position of county physician for Johnson county for the coming year made vacant by the death of Dr. John Mueller.

It is reported that Major Donald Macree has been recommended for promotion as lieutenant-colonel.

Mr. and Mrs. E. J. Wells received a letter the past week from their son Dr. W. S. Wells, written in Luxemburg the fore part of December stating that he had been promoted to the rank of captain. We congratulate him upon his early promotion. "Stanley" as he is familiarly known by his friends, is a graduate of the Nashua high school, Grinnell college and Harvard Medical School. He was assigned to first aid help on the battlefield and was in service at St. Mihael in September and later on in the Argonne Forest region, said by the captured German officers

to be the worst blood-letting sector on the whole battle front. His division was the first to cross the river Meuse. He is now with the army of occupation.

Dr. R. G. Davis, who has the rank of lieutenant-commander, is ship surgeon on the transport, Northern Pacific, which was ashore off New York. Dr. Davis was completing his twelfth round trip in European waters.

Among the boys who have rendered distinguished service in the war is Dr. Lee Shafer, the son of Mr. and Mrs. E. E. Shafer who reside on a farm between Garrison and Dysart. Dr. Shafer wears the French "Croix de Guerre with Palm" which corresponds to the United States distinguished service cross. He also has two wound stripes, one for being injured last March and the other for being gassed recently. Dr. Shafer has worked in hospitals in France since early in the war, caring for the wounded and was at the front for many months. He has sacrificed his own health to bring relief to the Americans and our Allies and has saved many lives by his ministrations. Benton county is proud to claim him.

Capt. William S. Carpenter, county coroner, has been ordered to report for duty at Camp Knox, West Point, Kentucky.

Major W. Ruml, after six weeks of training at the Mayo Clinic, is ordered to Camp Taylor, Louisville. Major Ruml is an enthusiastic admirer of government methods of doing things surgical.

Dr. John W. Tipple of Raleigh, N. Dakota, who has just been released from eighteen months army service has decided to locate in Kensett.

Dr. A. Crawford of Mt. Vernon, retires from active practice at the opening of the new year.

Dr. W. E. Saunders has returned from a three months' visit in California.

Dr. Elmer Robb, formerly of Newton, and who some years ago removed to Sturgeon Bay, Wisconsin, has been recently appointed as physician to a hospital for the insane at Retreat where he is now located.

Dr. Thomas McMahon recently serving in the medical corps at Fort Riley will take up practice at Garner.

Dr. Finley of Waverly has returned home from Camp Oglethorpe and will resume practice.

Lieutenant A. S. Sterling has been honorably discharged from the training school at Camp Greenleaf and will resume practice in Newton.

Capt. George C. Skinner of the medical corps, who was wounded and gassed has been returned to the United States and at this writing is in the United States General Hospital, Fort Des Moines.

Word has been received by friends in Rockwell City to the effect that Dr. Clyde N. Maughan, former Rockwell City physician, who was severely wounded during the last few days of fighting on France, has been invalided home and has arrived in New York. It is expected that he will be sent to the military hospital at Fort Des Moines. Doctor Maughan was wounded on November 3, receiving shrapnel wounds

in the back and in the neck, causing partial paralysis. For some time, he could not use his arms, but it is reported that he is gradually recovering.

Dr. Chas. S. Grant was appointed member of the state board of health at Des Moines. This recognition came to him as a surprise. Those who knew of Dr. Grant's work as secretary of the Southern Exemption Board and who knew of his ability in that work will not be surprised that the new honor has come to him. He takes the place of Dr. Harris of Grinnell, who recently resigned.

Dr. David E. Rouse of Columbus, O., was named city health commissioner by council of Des Moines at a salary of \$3,000 a year. Dr. Rouse took his office January 15. During the war he was in the United States public health service, with headquarters at San Antonio, Texas.

Lieut. J. H. Bruce, who left Dickens last summer to enter the army service, has received honorable discharge and has decided to again locate in Dickens for the practice of his profession.

The Marcus town council has asked the war department for the release of Dr. M. F. Joynt, lieutenant in the medical branch, who is stationed at a medical camp in Georgia, owing to the spread of influenza in the vicinity of Marcus.

Dr. Henry Albert and Dr. John H. Hamilton attended the meeting of the state board of health in Des Moines, January 6-7, in which the flu situation was the important topic of discussion.

Dr. Edwin Schenk, 216 Utica building, who for the past eight years has been head of the department of theory and practice in the medical college at Iowa University, resigned his position January 1, and will devote his entire time to practice in Des Moines.

Lieut. A. E. Sterling having received his discharge from the training school at Camp Greenleaf, Georgia, where he has been a member of the Medical Officers' Training Group for the past three or four months. He is back in his office in the Jasper County Bank building and resumed his duties as dentist.

Dr. E. G. Jarmin, formerly of Blairsburg and more recently of Augustana Hospital, Chicago, has decided to locate permanently in Webster City.

Captain A. S. Conrad of Decorah, who has just returned from army duty, has opened up new offices in the Marlow building, Decorah.

Capt. W. C. Newell is now located at Evacuation Hospital No. 32 in France, being located some thirty miles from Paris. Capt. Newell upon entering the service was first stationed at Camp Shelby, Miss., later going to Anniston, Ala. Previous to sailing he was sent to Camp Mills, N. Y., and left for France, November 10, the day before the armistice was signed. Arriving in England within two weeks, he was in Liverpool for Thanksgiving day, from which he cabled his mother. He landed in La Harve, France and was sent to Evacuation Hospital No. 32 where he has since been located.

Dr. John H. Peck announces his discharge from military service and return to private practice which will be limited to diseases of the heart and lungs.

The Coon Rapids Enterprise in mentioning the retirement from practice of Dr. C. W. Henry states that he is among the oldest practitioners in the profession in the county, citing Dr. Williams as the dean of the profession. Dr. J. J. Deshler of Glidden should not be overlooked when referring to the veterans. Like Dr. Henry, he is not a very old man, but he has been in the practice in the same field for nearly thirty-five years.

Dr. Fred Lambach of Davenport returned from Des Moines where he was mustered out of the service. He will renew his practice at once. Dr. Lambach was commissioned captain in the medical division and since his enlistment has been stationed at Eastern cantonments. He was the oldest Scott county man in the service.

Dr. James L. McKone of New Hampton who for several months has been in the service at Fort Snelling has been honorably discharged from the United States Army and is back at his practice in his office in the Wilkins block.

Dr. C. N. O. Leir of Des Moines has returned from overseas duty and announces his return to the practice of medicine with special attention given to roentgenology.

Major Thos. A. Burcham, of Des Moines, who was several months overseas, going over with the Rainbow Division has returned and is now on duty at Ft. Des Moines.

Dr. John M. Griffin has been honorably discharged from the service and has returned to Albia where he is associated with Dr. T. E. Gutch in the Miners' Hospital.

Dr. J. W. Shuman, of Sioux City, who received his honorable discharge at Trenton, N. J., January 11, has returned to his practice at Sioux City. Dr. Shuman entered active service October 28, 1917, and was sent overseas January 10, 1918, serving in several appointments in France, one of which included a six weeks' inspection tour of the British Medical Corps, especially Vimy sector. This inspection continued until April 7, 1918, after which time until December 22, 1918, Dr. Shuman was chief medical officer at headquarters hospital, S. O. S. Dr. Shuman was commissioned captain June 15, 1917 and was promoted to the rank of major October 23, 1918.

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#### DEATH OF DR. ALBERT WILLIAM MYERS, FORMER EDITOR OF THE WISCONSIN MEDICAL JOURNAL

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Dr. Myers was born in Dixon, Ill., in 1872. After completing a high school course at Ishpeming, Mich., he was engaged in the banking business for a period of five years, after which he entered the medical department of the University of Pennsylvania, where he graduated in 1896. After serving internships at the Episcopal and Philadelphia Children's Hospitals, he entered upon private practice in Milwaukee in 1900. He soon evinced a leaning toward pediatrics, gradually devoting more and more of his time to this spec-

ialty, and during the past few years limited his practice to this branch of medicine. Through his active association with the Milwaukee Infants' Hospitals and through his teaching position at Marquette University Medical School, as well as through an extensive private and consulting practice, he had established himself as the foremost specialist in his branch in the city and state. His activity in local, state and national medical bodies, gave him scope for the exhibition of his unusual ability. His virility as a writer on medical subjects was exhibited during his editorship of the Wisconsin Medical Journal, which position he held for a period of six years.

### DEATHS

Dr. Nathan Clark Morse died at his home in Eldora, January 18, 1919, after a brief illness, and had been confined to his house only one day.

Dr. Morse was born in Louisville, Ky., July 12, 1856. He came to Eldora July 4, 1872, immediately after completing his medical course at Cincinnati, and July 12, his twenty-first birthday, opened an office for the practice of medicine. Dr. Morse was a versatile man and of considerable literary ability. He became an expert x-ray operator and devised



DR. NATHAN CLARK MORSE

many ingenious appliances which were helpful in his medical and surgical work. He was the author of two useful books on emergency surgery which the writer has read with considerable advantage. Dr. Morse, to facilitate his medical and surgical work

built a convenient and modern hospital which was extensively known as the "Emergency Hospital." He was active in medical society work, was a member of his local society; Iowa State Medical Society; Fellow of the American Medical Association; the American Association of Railway Surgeons; a Fellow of the American College of Surgeons; the Pan-American Congress and at one time of the Western Surgical Society.

Dr. Morse belonged to a distinguished family. Professor S. F. B. Morse, the inventor of the telegraph, was an uncle; a brother was at one time general traffic manager of the Southern Pacific Railway. Another brother superintendent of the Erie Railway.

In October, 1878, Dr. Morse was married to Frances A. Wilson at Covington, Ky.

It was the writer's privilege to visit Dr. Morse in his home many times. Although he had no children he was a father to all the little ones in town.

He was interested in art and music and always an interesting entertainer.

Dr. Nancy Hill, pioneer woman physician of Dubuque, died January 8, 1919, eighty-six years of age. Dr. Hill was born at West Cambridge, Mass., November, 1833, a daughter of William and Harriet Swan Hill. In the common schools of the home neighborhood she began her education and later entered Mt. Holyoke seminary where she pursued a thorough course of study. She was one of those brave women who during the civil war sacrificed home interests and social pleasures and aided in the care of those who went forth to the defense of the Union. As a volunteer she went to the Armory Square Hospital at Washington, D. C., and there remained for three years, her kindly service and ministrations aiding greatly to the comfort of the wounded men.

Immediately after the battle of the Wilderness nearly three hundred wounded soldiers were put on transports and sent by way of Aquia Creek to Alexandria, whence they walked to Amory Square Hospital. By some mistake their papers had not been forwarded to the officers and by order of Secretary Stanton they were refused admission into the hospital. Dr. Bliss, head surgeon, was afraid to disobey the orders of Stanton and rather than witness the men suffering in the streets, he went home. Not so with Miss Hill. Born with the high courage that had characterized her Revolutionary ancestors, and too good and brave to allow such a wrong to be permitted she opened the gates and bade the guards turn their backs, as she intended to bring the wounded men into the building and give them needed attention and succor. The guards did as requested and the wounded men followed her into the hospital and were given proper attention. It had been supposed that they were deserters, but such was not the case as on the following day their credentials arrived. Then Miss Hill was complimented by all for her prompt and noble action on behalf of the wounded men.

So successful was Miss Hill in hospital work that Dr. Bliss advised her to study medicine, and acting upon this suggestion she began her professional readings on returning to her home in Massachusetts. Later she took a course of lectures in the University of Michigan, graduating in 1874. She then received an appointment in the New England Hospital for women and children at Roxbury, Massachusetts, where she spent a year and a half. From the old bay state she came to Dubuque and opened offices on Locust street.

Dr. Hill was a member of the Dubuque Medical Association, Cedar Valley Medical Society, Iowa State Medical Society, and the American Medical Association, Daughters of the American Revolution, and Shiloh Circle, G. A. R.

Dr. Hill was descended from worthy ancestors, the family having been founded in America by emigrants from Lincolnshire, England, who crossed the Atlantic in 1630. They were loyal to their new home, and members of the family took an active part in the war of the Revolution.

Dr. J. V. Bean died at his home in Fairfield, January 7, 1919. Dr. Bean was seventy-five years of age and for the past year had been city health officer for Fairfield. During the past three months during the epidemic of influenza he had been working very hard for one of his age and it is thought the work brought on his death.

On Christmas morning, 1918, Dr. B. P. Blackmer, a long time resident and good citizen of Van Buren county, died at his home in Bonaparte following several months of steady failing health. His age was seventy-nine. Two daughters survive, Mrs. Harry Jones of Farmington and Miss Bena who resided in the parental home. He was born in New York and became a resident of Bonaparte in 1878.

Dr. J. G. Holloway was born in Mercer county, Tennessee, July 11, 1839, and died January 4, 1919, at his residence, 221 South Ward street, Ottumwa, aged seventy-nine years, five months, and twenty-seven days. He came with his father's family from Pennsylvania when a small boy, to Wapello county, Iowa, where he grew to manhood. He enlisted in D Company, Fifteenth Iowa Regiment in the beginning of the Civil War. He was wounded in the battle of Shiloh and sent back to Keokuk on a furlough and was united in marriage to Miss Lida Seeker, September 8, 1864. After his marriage he returned to his regiment and continued in the service until honorably discharged.

Dr. N. S. Smith of Marshalltown died January 9 from cancer of the throat.

Dr. Smith served as a surgeon in the Civil War and in the regular army following the war. He practiced in Washington, D. C., for some time after the war, and came to Marshalltown about twenty-five years ago. In more recent years he practiced at Sioux City,

St. Louis and Rapid City, S. D. He was graduated at the State University of Iowa and took post graduate work in eye, ear, nose and throat at Georgetown University, Washington.

Dr. Smith was a native of Watertown, N. Y., where he was born April 21, 1839. He came to Albion in 1860 and on November 11 of that year took Miss Jennie Parnell of Albion, as his wife. On July 28, 1862, Dr. Smith enlisted in Company K, Thirty-second Iowa Infantry. He was promoted to hospital steward October 6, 1862, the late Dr. W. B. Waters of Marshalltown being assistant surgeon of the regiment. After two years with the Thirty-second, Dr. Smith was discharged for promotion and became assistant surgeon of the Thirty-fifth Infantry, succeeding the late Dr. E. J. B. Statler.

Dr. Smith was discharged May 25, 1865, at Washington with the rank of assistant surgeon.

Because he had not finished his medical course before the outbreak of the war, Smith went to Iowa City, completed his study, and was graduated from the University. His appointment as a surgeon in the regular army followed. For some time he was stationed at Fort Randall, Okla.

John G. Mueller, M.D., graduated from the University of Iowa in 1895, and died at his home in Iowa City, October 17, 1918, of Spanish influenza, age forty-eight years.

His entire life was spent in Iowa City, where he became a beloved physician and leading citizen.

## SOCIETY PROCEEDINGS

The Cedar County Medical Society met at Tipton, February 12 at which time the following officers were elected: President, James Irvin, Durant; vice-president, A. A. Griffis; secretary-treasurer, J. G. Rohrig, Bennett. Three new members were received, G. E. Herschel of Mechanicsville, James Irvin, Durant, and F. L. Rabe of Lowden.

The Johnson County Medical Society held its first meeting since the influenza quarantine, January 15, 1919, at the University Hospital. The election of officers for the coming year was as follows: President, Dr. H. V. Scarborough, Oakdale; vice-president, Dr. J. E. Kimbell, West Liberty; secretary and treasurer, Dr. Geo. C. Albright, Iowa City; censor, Dr. C. P. Howard, Iowa City; delegate to State Society, Dr. J. T. McClintock, Iowa City; alternate delegate, Dr. F. J. Rohner, Iowa City. A program is being arranged for the next regular meeting which will be held February 5, 1919. The society has reentered work with enthusiasm and an interesting year is in prospect.

The Johnson County Medical Society held its regular monthly meeting Wednesday, February 5, 1919, at 8:00 p. m. The scientific program given was very interesting and eminently valuable.

At the opening of the program the in-coming pres-

ident, Dr. H. V. Scarborough, spoke very interestingly on the outlined work of the society for the coming year.

Dr. Henrietta Calhoun, of the Department of Pathology, gave a paper describing an interesting case of internal hydrocephalus without symptoms, in which lumbar puncture was followed in about thirty-six hours by death. Autopsy disclosed mild internal hydrocephalus and obliteration of the aqueduct of Sylvius by a proliferation of the ependymal cells. Death was believed to be due to the disturbance in respiratory center brought about by any quality of relative pressure above and below the aqueduct of Sylvius, after withdrawal of three to four cc. of spinal fluid.

Dr. F. J. Rohner, Department of Internal Medicine, University of Iowa, presented the subject of blood transfusion, reviewing the indications for transfusion, the technique of transfusion with a demonstration of some original equipment for transfusion and an explanation of the method for selecting donors.

Dr. J. C. Kessler presented three cases; one of urticaria with pigmentation, two cases of primrose dermatitis.

Dr. George C. Albright presented a report of two cases of septicemia terminating fatally, which had their origin in the foci in the accessory nasal sinuses.

A regular meeting of the Scott County Medical Society was held Tuesday evening February 4 at 8:00 o'clock at the public library, Davenport.

Lieut. D. J. Jacobson, officer in charge of the venereal section, U. S. Public Health Service and government clinics in the State of Iowa, spoke on venereal diseases and their control and the object of the government clinics.

Dr. G. F. Harkness read a paper on the treatment of meningitis.

Dr. L. Allen read a paper on infection of war wounds.

Regular meetings of this society are held the first Tuesday of each month in the public library building.

Doctors Harkness, Speers and Lambach have returned from the service.

Doctor Harkness has offices in the Whittaker building, practice limited to eye, ear, nose and throat.

Doctor Speers has offices in the Schmidt building, practice limited to general medicine and surgery.

The Iowa and Illinois Central District Medical Association was held Thursday, January 9, 1919 at Davenport, Blackhawk Hotel, at 8:00 p. m. The program was as follows:

Eczema—Dr. C. F. Jappe, Davenport.

Intra-Spinal Therapy—Dr. S. G. Hands, Davenport.

Treatment of Pneumonia—Dr. G. G. Greig, Rock Island, Illinois.

Some Experiences at the Front—Dr. Larned Allen, Davenport.

A light lunch following program.

The following announcement for the March meeting of the Scott County Medical Society is indicative of the interest and spirit that prevails in that county society. We pass it along.

Dear Doctor: A regular meeting of the Scott County Medical Society will be held Tuesday evening March 4 at 8:00 o'clock in the public library building, Davenport.

### Program

John J. Bridgeman, Jr., P.D., with Iowa State Board of Health will show us a five reel moving picture of the Carrel-Dakin solution and technique and Dakin's subsequent products Chloramine-T and Dichloramine-T. This picture was taken in the Rockefeller Institute showing the technique when these solutions are used.

Dr. C. L. Barewald will read a paper on Syphilis.

Dr. Wm. Stoecks will read a paper on Cystoscopy and Urethral Catheterization.

Dr. H. P. Barton will give a ten-minute talk of his experiences in the United States Army in one of the largest base hospitals in the East.

Dr. George S. Bawden will give a ten-minute talk on the treatment of Gonorrhea and Syphilis and his experiences with same while in the United States Army Base Hospital.

Drs. Lambach, Barton and Murphy have returned from the service.

Dr. Frederick Lambach has offices in the Putnam building. Practice, general medicine and surgery.

Dr. H. P. Barton has offices in the Lane building. Practice, general medicine and surgery.

Dr. Murphy has entered partnership with his brother Dr. W. L. Murphy of Aurora, Ill.

Bulletins have been placed in each of the following hospitals: St. Lukes, Davenport and Mercy Hospitals. All announcements of the Scott County Medical Society will be posted on each of these hospital bulletins from time to time. Doctor, we need interesting papers; we need clinical cases; we need new members; we need each member's dues.

R. E. J., Sec'y.

The next annual Congress on Medical Education and Licensure, participated in by the Council on Medical Education of the American Medical Association, the Federation of State Medical Boards of the United States, and the Association of American Medical Colleges, will be held at the La Salle Hotel, Chicago, Monday and Tuesday, March 3 and 4, 1919.

On Monday, March 3, the Council on Medical Education of the American Medical Association will hold its fifteenth annual conference. The general topic for discussion will be on "Problems of Medical Education as Revealed by the War." Several prominent medical officers will participate, including Brig.-Gen. E. L. Munson, Lieut.-Col. H. D. Arnold, and Capt. F. C. Waite. Surgeon-Generals Ireland and Braisted, respectively of the Army and Navy, and President Maclaurin of the Massachusetts Institute of Tech-

nology have also been asked to present papers.

On Monday afternoon a joint session between the Council and the Federation of State Medical Boards will be devoted largely to a discussion of hospital standardization and the hospital intern year. Prominent leaders in hospital work have been asked to present papers and the discussion will be from the various standpoints of the hospital, the medical college, and the state licensing board.

On Tuesday, March 4, the Federation of State Medical Boards and the Association of American Medical Colleges will hold their annual meetings. In the forenoon there will be a joint session, while the separate business meetings will be held in the afternoon.

You are very cordially invited to attend this series of conferences and to take part in the discussions. Held under the auspices of the Council on Medical Education of the American Medical Association.

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### ORDERS TO OFFICERS OF THE MEDICAL CORPS, U. S. ARMY

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To Eastview, N. Y., from Camp Sevier, Lieut. C. E. Dakin, Mason City.

To Fort Des Moines, Iowa, from Rockefeller Institute, Lieut. W. H. Hombach, Remsen.

To Fort McHenry, Md., for instruction, from Fort Oglethorpe, Capt. M. B. Dunning, Conway.

To Fort Sheridan, Ill., from Fort Oglethorpe, Lieut. C. D. Mercer, West Union.

To Pittsburgh, Pa., from Fort Oglethorpe, Lieut. C. Baker, Colo.

To Rochester, Minn., Mayo Clinic, for instruction and on completion to his proper station, from Fort Des Moines, Capt. F. R. Holbrook, Des Moines.

To Rockefeller Institute for instruction in the treatment of infected wounds and on completion to Fort McHenry, Md., from Camp Dodge, Capt. J. E. Swanson, Sioux City.

To Camp Dodge, Iowa, base hospital, from Camp Lee, Capt. J. G. Roberts, Oskaloosa.

To Camp Grant, Ill., from Fort Riley, Capt. J. M. Smittle, Waucoma; Lieut. G. S. Westly, Manley.

To Camp Jackson, S. C., to examine the command for cardiovascular diseases, from Lakewood, Lieut. A. C. Davis, Iowa City.

To Camp Lewis, Washington, from Fort Riley, Capt. A. G. Byers, Albia.

To Fort Des Moines, Iowa, from Camp Grant, Lieut. B. C. Hamilton, Jr., Jefferson.

To Fort Douglas, Utah, from Camp Grant, Capt. I. E. Nervig, Sioux City.

To Camp Beauregard, La., base hospital, from Camp Bowie, Lieut. B. B. Miller.

To Camp Dodge, Iowa, base hospital, from Camp Lee, Capt. J. G. Roberts, Oskaloosa.

To Camp Sherman, Ohio, base hospital, from Boston, Lieut. W. J. Fenton, Mystic.

To San Francisco, Letterman General Hospital, from Camp Kearney, Capt. R. H. Rylos, Hudson.

To Army Medical School, from Camp Dix, Capt. W. F. Carver, Fort Dodge.

To Boston, Mass., from Camp Devens, Lieut. J. M. Mansfield, Iowa City.

To Camp Beauregard, La., base hospital, from Camp Wheeler, Capt. H. R. Reynolds, Clinton.

To Camp Devens, Mass., base hospital, from New Haven, Major G. McConnell, Waterloo.

To Camp Travis, Texas, from Camp Cody, Lieut. W. P. Sherlock, Keokuk.

To Fort Rosecrans, Calif., from Vancouver Barracks, Lieut. E. E. Richardson, Webster City.

To Key West Barracks, Fla., from Camp Meade, Capt. E. A. Bare, Pleasantville.

To report to the Commanding General, Western Department, from San Francisco, Major A. V. Hennessy, Council Bluffs.

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### BOOK REVIEWS

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#### ABSTRACTS OF WAR SURGERY

An Abstract of the War Literature of General Surgery that has been Published Since the Declaration of War in 1914. Prepared by the Division of Surgery, Surgeon General's Office. C. V. Mosby Company, St. Louis, 1918. Price \$4.00.

This book of 434 pages is made up of abstracts of papers published in leading American and English Journals on war subjects including surgery and many other war activities. The purpose of gathering this material was to place in the hands of those engaged in instructing medical corps volunteers carefully selected matter for ready reference. A limited number of these abstracts were printed and sent out as above stated. But the number was found too limited to meet the demand for authoritative and experienced information on war subjects and for this reason the C. V. Mosby Company was authorized to publish in book form this important and valuable collection of papers.

The reader will find grouped in this volume the most valuable war contributions as determined by the division of surgery of the Surgeon General's office. The value of this contribution to surgical literature cannot be placed too high and will remain a monument to the activities of the medical department of the army.

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#### THE DISEASES OF INFANCY AND CHILDHOOD

Designed for the use of Students and Practitioners of Medicine. By Henry Koplik, M.D., Attending Pediatrist to the Mount Siani Hospital, New York; Consulting Physician to the Hospital for Deformities; Formerly Attending Physician to the Good Samaritan Dispensary. The St. John's Guild Hospitals, New York, etc. Fourth Edition, Revised and Enlarged. Illustrated with 239 Engraving and 25 Plates in Color and Mon-

ochrome. Lea and Febiger, 1918. Philadelphia and New York.

The questions relating to child welfare have received unusual attention in very recent years and have engaged the attention of physicians in general practice to a degree greater than heretofore. So much is involved in bringing the child through the years of infancy and early childhood in a condition to meet successfully the beginning years of activity, that the recorded experiences of those of large opportunities are welcome to the practitioners of lesser experience and to those just entering upon a field of professional activity.

In this book of 915 pages, Dr. Koplik presents an outline of the conditions met with in infancy and childhood and a full account of the most important diseases that are quite certain to overtake children. The author in speaking of the new born infant says, "The diseases of the new born are mostly septic in nature and attack the infant within a short time after birth," and from this point follows out the dangers to which the infant is exposed. Then follows a section on nutrition and infant feeding which involves a period of constant anxiety and has an important bearing on the management and treatment of diseases incident to children. It is quite impossible to follow out in detail the numerous subjects treated. We are only able to say that our examination of the book calls to mind the advantages of detail direction in examination, treatment and nourishment afforded the physician and nurse. Much that we have read in relation to children has left something to regret because the author was not explicit in detail for it is a fact that many things in relation to the treatment of children's diseases is based on empirical experience and observation.

#### DISPENSARIES: THEIR MANAGEMENT AND DEVELOPMENT

A Book for Administrators, Public Health Workers and all Interested in Better Medical Service for the People. By Michael M. Davis, Jr., M.D., Director of the Boston Dispensary and Andrew R. Warner, M.D., Superintendent of Lakeside Hospital, Cleveland. The MacMillan Company, New York, 66 Fifth Ave. Price \$2.25.

This is an interesting book relating to the organization and management of public dispensaries. The first chapter is devoted to the history of public dispensaries, the first being organized immediately following the great London fire in 1665. The fire was a blessing in that it followed the plague and thus destroyed germs of the disease. But there followed great poverty, needing certain means of relief. The Lord Mayor and Alderman voted that all members of the College of Physicians should give their services to the poor without charge, but the pharmacists of London were at that time organized as a guild and would not reduce their prices and fifty-three leading physicians signed an agreement to pay ten pounds each, this money to be used for the purchase of

medicines for the poor, and thus was organized the first dispensary December 22, 1696. The first in Philadelphia, 1786; New York, 1790; Boston, 1796. Dispensaries increased in large cities and became an efficient means of treating the sick poor.

Later dispensaries became an efficient aid to medical teaching. The function of a dispensary has recently been extended and the term clinic employed to certain special dispensaries. The dispensary idea has been enlarged in a broader way to include a social service and promises more and more in this direction. The authors of this book have given study to the problems involved in a dispensary service and have worked out plans for organized efficiency including social service, clinics, buildings, records, administration, free clinics, pay clinics, funds and support and the relations to the profession. The plans set forth in this book may not meet with the approval of the profession as being destructive to the family physician relationship, but like health insurance it is being pressed as a part of the social service propaganda in which the interests of the medical profession will be only incidental and secondary if the medical profession refuse to study the subject in all its relations and take an active part in these measures, he has only himself to blame if he should be the loser.

We therefore suggest that physicians read this book which brings out the arguments in favor of social service dispensaries and clinics, and the voluminous literature on health insurance and be prepared for what may be in store for us.

#### TRANSACTIONS OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA

Third Series, Volume XXXIX. Printed for the College, 1917.

The annual volumes of transactions of this ancient institution contains biographical sketches of the lives of the many famous physicians and surgeons from the time that John Redman was elected president in 1787 to 1917. Addresses of presidents of the college and carefully prepared papers of distinguished fellows which may be received as classics in medicine.

#### STUDIES IN EPIDEMIC POLIOMYELITIS

The Etiology of Epidemic Poliomyelitis, E. C. Rosenow and G. W. Wheeler. The Elective Localization of Streptococci from Epidemic Poliomyelitis, E. C. Rosenow, E. B. Towne and C. L. Hess. Agglutination of the Pleomorphic Streptococcus Isolated from Epidemic Poliomyelitis by Immune Serum, E. C. Rosenow and Hazel Gray. Report on the Treatment of Fifty-eight Cases of Epidemic Poliomyelitis with Immune Horse Serum, E. C. Rosenow. From the Mayo Foundation, April, 1918.

This group of papers published in monograph form of 140 pages includes the work of Professor Rose-

now and his assistants on epidemic poliomyelitis and is a distinct contribution to knowledge on this important subject.

### THE MEDICAL CLINICS OF NORTH AMERICA

New York Number, Volume II, Number One. W. B. Saunders Company, July, 1918. Philadelphia and London. Published Bi-Monthly; \$10.00 Per Annum.

The first paper of this number is one of great interest by Dr. Frank S. Meara, Cornell University, under the title of Hyperpiesia of Clifford Allbutt; a consideration of high blood-pressure, arteriosclerosis, Bright's disease, relations and signification. There are so many thoughtful reflections on facts not infrequently confused in the mind of the observer that we recommend a careful and thoughtful reading of the paper, because these problems are always before us. Dr. E. Lebman of Mount Sini Hospital considers the clinical features of subacute streptococcus and influenzed endocarditis from a standpoint of great clinical interest especially in view of our recent experience.

Dr. Walter L. Niles of Bellevue gives us an interesting lecture on non-tubercular pulmonary infections and Dr. S. Philip Goodhart of Montefiore Hospital gives an interesting and instructive paper in primary myopathes and their endocrine relationship which will be helpful to the general practitioner of medicine. Papers of this class are of the highest importance and greatly widens the knowledge of the physician who without such knowledge must find himself often at a loss at the bedside of his patient. There are other papers in this number which will convince the reader how great the field of medicine really is.

### THE WASSERMANN TEST

Charles F. Craig, A.M., M.D., Lieutenant Colonel Medical Corps, United States Army. Formerly Assistant Professor of Bacteriology and Pathology Army Medical School, and George Washington University. Commanding Officer Department Laboratory, Central Department United States Army, Ft. Leavenworth, Kansas. Illustrated with Colored Plates, Halftone Plates, and Fifty-seven Tables. C. V. Mosby, 1918. St. Louis, Mo.

The practice of medicine and surgery are so closely identified with syphilitic infection that inquiries into the existence of syphilis has become a routine requirement. Until the discovery of the Wassermann reaction, the profession depended on clinical evidence for the diagnosis of syphilis, which was recognized as insufficient. The importance of accuracy in the diagnosis in this disease, which has so wide a bearing on certain conditions, that intensive studies based on immunology resulted in the discovery of the Wassermann test and a vast litera-

ture has accumulated on the value of the test. Some modifications have been made in the interest of greater accuracy. Until now, the Wassermann test has been placed beyond question. The author in this book has placed before the profession, a convenient outline of the value of the test; the technic to be employed together with recent modifications. Methods, elements of error, etc.

### THE MEDICAL CLINICS OF NORTH AMERICA

May, 1918. Published Bi-Monthly by W. B. Saunders Company. Philadelphia and London.

The number before us is designated "Southern Number" and gives us a fair representation of medicine in the south as exemplified in the large and well organized hospitals in our southern cities. Excellent clinical studies by Dr. George S. Bel and Dr. C. C. Bass in the great Charity Hospital at New Orleans. In Memphis General Hospitals are included clinics by Dr. J. B. McElroy and Dr. Bryce W. Fontaine.

Dr. Charles L. Minor of Ashville, North Carolina presents an interesting discussion on artificial pneumothorax in the arrest and cure of pulmonary tuberculosis which may be read with profit to those interested in the subject. Dr. J. Ross Snyder of Birmingham gives us a study on pellagra. From Columbia University we have a clinic by Dr. J. Heywood Gibbs and from Charlotte Sanatorium an interesting discussion of severe headaches by Dr. John P. Monroe. Altogether the Southern Number is a very creditable one and is a worthy contribution to the useful medical clinic.

### PHYSIOLOGY AND BIOCHEMISTRY IN MODERN MEDICINE

J. J. R. Macleod, 1918. C. V. Mosby Co., St. Louis. Price \$7.00.

There has long been a need for such a work as this one. So much of the present day advance in clinical medicine has been along biochemical and physiological lines that a graduate of even a decade ago needs to thoroughly read this book. Of course the author is more a physiologist than a chemist but he has nevertheless succeeded in presenting the chemical aspects of his subject fairly clearly. The first part treats of the physicochemical basis of physiological processes, as the laws of solution, osmotic pressure hydrogen-ion concentration, colloids, ferments and exzymes. Parts two and three describe the circulating fluids and the circulation of the blood. This of course concludes with a description of the polysphygmograph, and the electrocardiograph.

Part four on respiration is of special interest including as it does the relationship between alveolar carbon dioxide, respiratory activity and acidosis. Physiology of digestion is dealt with in part five in a very clear style.

The section dealing with metabolism reveals more confusion in presentation of the subject than is seen elsewhere in the book. This of course is a most difficult subject to handle because of the many phases of the problem but it would seem possible to correlate better the chapters on energy balance, respiratory exchange, and the relationship of carbohydrates and fats to nutrition and growth. We regret that more attention is not paid to the subject of dietetics, which is so much neglected by our profession. The metabolism of protein seems to be handled more clearly.

The section on the ductless glands is full and presents all the newer conceptions of this interesting field. The last section deals with the nervous system and includes less of recent acquisition than any of the previous pages with the possible exception of the chapters dealing with the functional tests of the semi-circular canals and the autonomic nervous system.

It is a book which every student of medicine, should read carefully if he hopes to be abreast with medical progress. C. P. Howard.

#### PATHOLOGICAL TECHNIQUE, THE NEW (7) EDITION

A Practical Manual for workers in Pathologic Histology and Bacteriology. Including Directions for the Performance of Autopsies and for Clinical Diagnosis by Laboratory Methods. By F. B. Mallory, M.D., Associate Professor of Pathology, Harvard Medical School; and J. B. Wright, M.D., Pathologist to the Massachusetts General Hospital. Seventh Edition, Revised and Enlarged. Octavo of 555 Pages with 181 Illustrations. Philadelphia and London. W. B. Saunders Company, 1918. Cloth \$3.75.

This work has long been the standard guide in the technical work of the pathologist. It describes in detail the various procedures used in the examination of tissue specimens, bacteria, animal parasites, blood, etc., as well as the making of serological tests, such as the Wassermann reaction. No one in this country has given as much attention to the application of various stains to pathological processes as has been done by Dr. Mallory. It closes with a good chapter on the making of post mortem examinations.

The work does not aim to entirely take the place of manuals on clinical laboratory diagnosis. Thus, for instance, but one-half page is given to the examination of urine. Regarding such the author makes the following remark, "Only those points are mentioned which come within the province of the pathologist." It is therefore not a volume that is as valuable to the general practitioner as are certain works dealing more especially with clinical laboratory diagnosis. On the other hand it is invaluable for the pathologist. No pathological laboratory should be without a copy of this work on its shelves.

Henry Albert.

#### SURGICAL TREATMENT

A Practical Treatise of the Therapy of Surgical Diseases for the use of Practitioners and Students of Surgery. By James Peter Warbasse, M.D., Formerly Attending Surgeon to the Methodist Episcopal Hospital, Brooklyn, N. Y. In Three Large Octavo Volumes and Separate Desk Index Volume. Volume Two Contains 829 Pages with 761 Illustrations. W. B. Saunders Company, 1918. Per Set, Three Volumes and the Index \$30.

The second volume of this valuable work is devoted mostly to traumatic surgery and refers to the treatment of injuries and conditions that arise from injury. The several subjects are arranged in regional order. First, the head, the spine, the neck. Second, the thorax, the breast and, third, the abdomen.

The surgery of the head includes operations for malignant disease and tumors which may arise in this region. There is also included injuries and diseases of the eye and ear not altogether as they occur in the practice of the specialist but in the practice of the general surgeon.

In the spine likewise is included not only injuries but also problems in their relation to orthopedics.

In the neck there are also included operations in the lymphatic glands and operations for goitre.

The section including the thorax, which from the standpoint of modern surgery is so important in relation to accidents and disease is treated with careful detail; the surgery of the pleura and the lungs of today is of permanent interest and is set forth.

There is included some interesting and important work on the esophagus and mediastinum. There is also a well illustrated chapter on diseases and operations of the breast.

Nearly one-half of the second volume is devoted to the abdomen. After some anatomical considerations the different abdominal incisions are described and the reasons given for certain preferences. Following comes methods of closing and dressing. After laying this foundation for abdominal work, the methods of procedure for different operative undertakings are set forth. The author has a fortunate way of expressing himself which never leaves his meaning uncertain or doubtful. As we stated in reviewing this first volume this work is by a single author and was written after a well digested plan, a distinct economy of space and of uniformity value.

The publishers are to be congratulated in the mechanical features of the work and the excellency of the illustrations.

#### BULLETIN OF THE STATE UNIVERSITY OF IOWA

Sixth and seventh annual reports of the University Hospital, illustrated and contain a carefully prepared clinical report of cases treated.

## MODE OF INFECTION, MEANS OF PREVENTION AND SPECIFIC TREATMENT OF EPIDEMIC MENINGITIS

Simon Flexner, M.D., The Rockefeller Institute of Medical Research.

### UNIVERSITY OF IOWA MONOGRAPHS

Studies in Medicine. Volume I, Number Four. The Water Supply in the Field, by Jack J. Hinman, M.Sc. Published by the University, Iowa City.

## LEGISLATION CONCERNING THE MEDICAL SCHOOLS AT IOWA CITY

The medical faculties of the State University have agreed to consolidate by discontinuing the Homeopathic School and providing for a professorship in homeopathic materia and therapeutics as an elective. We record with great pleasure, the fact that the homeopathic faculty has agreed to this, and is an evidence of the growing liberality of a formerly considerate strong sectarian branch of medicine.

## A NEW BULK BACTERIN CONTAINER

A doctor who uses bacterins in quantity will be interested in a new form of bulk container which has been perfected, holding a considerable quantity of the bacterin, 5 mil or 20 mil, and so arranged that any desired quantity of its contents may be withdrawn without danger of contaminating the rest. Various types have appeared, the chief objection to them all being that the perforable cork could be, and was, easily worked loose in frequent handling. This danger is at last eliminated in the excellent container recently announced by the Abbott Laboratories, of Chicago, Ill. The perforable rubber diaphragm is incorporated into the rubber cork, which is inserted tightly into the neck of the bottle. Over this is placed a metal cap, with a single opening through which the needle may be inserted, sealing automatically upon withdrawal, and this cap is then crimped down tightly around the collar of the bottle. It is impossible for it to work loose and would present quite a problem if you were to try to remove it intentionally. Thus is the original sterility of the contents permanently assured. Over all is placed another metal cap, nicely machined so that it fits snugly and presents a pleasing appearance, besides adding further protection.

This container is of a "Squat style so that it will not easily tip over"—just another evidence of the painstaking care and minute attention to detail which characterizes its entire construction. The bacterins which the Abbott Laboratories supply in these 5 and 20 mil containers are well known for their purity, sterility, and accuracy. A complete list will gladly be sent upon request.

## B. IODINE AND B. OLEUM IODINE

### Report of the Council on Pharmacy and Chemistry

The Council has authorized publication of the following report on "B. Iodine" and "B. Oleum Iodine" along with the reply submitted by the manufacturer and a discussion of this reply by the referee in charge of the preparations.—W. A. Puckner, Secretary.

Specimens of B. Iodine and B. Oleum Iodine (B. Iodine Chemical Company) and an advertising pamphlet were sent to the Council by John Bohlander, A.M., M.D., with the declaration:

"Well knowing the value of Iodine in surgical operations and dressings, prompted me for the benefit of my fellow physicians as well as myself, and for Humanity's sake, to make Iodine my masterpiece in chemistry.

"After several years of diligent work in my private laboratory I succeeded in discovering a new product of Iodine—Nitrogen, hydrate of Iodine."

While "B. Iodine" is said to be nitrogen hydrate of iodine and "B. Oleum Iodine" a 5 per cent. solution thereof, the examination made by Prof. A. H. Clark of the University of Illinois, School of Pharmacy (working in the A. M. A. Chemical Laboratory), indicates that the first is a simple mixture of iodine and ammonium iodid, and the second a solution of iodine in liquid petroleum. The Council adopted the report of the A. M. A. Chemical Laboratory (which appears below) and declared B. Iodine and B. Oleum Iodine inadmissible to New and Nonofficial Remedies because:

1. The composition is incorrectly declared. B. Iodine is not a newly discovered iodine compound, "Nitrogen Hydrate of Iodine," but a mixture of iodine and ammonium iodid. B. Oleum Iodine is not a five per cent. solution of B. Iodine as suggested by the statement on the label and in the advertising, but a solution of iodine in liquid petrolatum containing about 0.85 per cent. of iodine.

2. Since B. Iodine is a mixture of iodine and ammonium iodid, its solution in water will have the properties of other solutions of iodine made by the aid of iodid, such as a dilution of tincture of iodine or of compound solution of iodine (Lugol's solution). Hence, the therapeutic claim that B. Iodine "being of a colloidal nature has the advantage of being more readily absorbed and taken up by all cellular structure, thus getting a perfect cellular medication of Iodine," is unwarranted.

3. The names "B. Iodine" and "B. Oleum Iodine" are not descriptive of the pharmaceutical mixtures to which they are applied.

4. B. Iodine and B. Oleum Iodine are unessential modifications of established articles. B. Iodine has no advantage over tincture of iodine or compound solution of iodine. (As more convenient of transportation, the Medical Department of the U. S. Army supplies its field hospitals with a mixture of iodine and iodid ready for solution in water, either in tablet form or in powdered form in tubes.) Solutions of iodine in liquid petrolatum may be readily prepared

(Reports Council Pharm. and Chem., 1917, p. 88).—  
Contribution from the A. M. A. Chemical Laboratory.

## B. IODINE PRODUCTS

A. H. Clark, Ph.G., B.S.

"B. Iodine" products are marketed by the B. Iodine Chemical Company, Cincinnati, Ohio; John Bohlander, A.M., M.D., is said to be the discoverer. They consist of "B. Iodine," "B. Oleum Iodine," and "B. Aqua Iodine." B. Iodine and B. Oleum Iodine were submitted to the Council.

In a circular submitted by the B. Iodine Chemical Company, B. Iodine is said to be "Nitrogen Hydrate of Iodine." It is claimed that "coming in contact with water,  $H_2O$ , a chemical change takes place forming Hydro Oxid of Iodine, the Nitrogen of the Nitrogen Hydrate of Iodine escaping, the balance taking up one of oxygen of the water. Its companion, the  $H_2$ , escaping at the same time with the Nitrogen then combining with the remainder of the water to form the solution of Hydrogen Oxid of iodine; so you can readily see that you really have a pure water of Iodine, nothing but the H. the O. and the I."

### B. Iodine

According to the circular, B. Iodine is soluble in alcohol, chloroform, and ether. Also it:

"Has odor, taste, melting and boiling point, same as regular Iodine, has a great affinity for water and will respond to all the tests of Iodine. Appears in a Bluish Black Granulated mass or powder. When heated in vaporating dish will throw off large purple volumes of Iodine leaving a slight white crystalline precipitate, which on continuous heating will entirely disappear. With careful manipulation you can get prismatic needle point like crystals, looking like spores of glass, these dissolving in water will yield pure Iodine coloring the water Iodine.

"Pharmacologic, therapeutical and physiological action: same as Iodine, being of a colloidal nature has the advantage of being more readily absorbed and taken up by all cellular structure, thus getting a perfect cellular medication of Iodine."

A sample of B. Iodine, marked "Nitrogen Hydrate of Iodine" was submitted by the manufacturers and this sample was examined.

B. Iodine was found to be a granular powder, almost black with a purple cast. It has an odor of iodine and dissolves in water readily. It is also quite soluble in alcohol, but not entirely soluble in chloroform and ether. Ether quickly dissolves iodine from B. Iodine leaving a residue of a white granular substance. Chloroform acts the same as ether except that the iodine is dissolved out with some difficulty. On heating B. Iodine, vapors of iodine escape. If the heating is done on a water bath, a residue of a white granular substance, subsequently identified as ammonium iodid, remains. If heated in a bunsen flame, no residue remains. These tests all indicate that iodine is held in the form of a simple mixture.

Ammonia—B. Iodine when mixed with an excess

sodium hydroxid and warmed, evolves ammonia.

Iodine—0.1567 gm. B. Iodine dissolved in water required 5.88 c.c. tenth-normal sodium thiosulphate solution indicating 48.28 per cent. iodine. 0.3721 gm. B. Iodine required 14.18 c.c. tenth-normal sodium thiosulphate solution indicating 48.37 per cent. iodine. The average is 48.33 per cent. iodine.

Ammonium Iodid—0.3453 gm. of the residue after heating B. Iodine on a water bath until all iodine had volatilized was dissolved in water, acidulated with phosphoric acid, and hydrogen dioxid solution added. The liberated iodine was extracted with chloroform and titrated with tenth-normal sodium thiosulphate. 23.78 c.c. were required indicating 0.3447 gm., or 99.83 per cent., ammonium iodid.

A mixture of 5 gm. iodine and 5 gm. ammonium iodid has the properties of B. Iodine mentioned above.

The conclusion is that B. Iodine is essentially a mixture of iodine and ammonium iodid in equal parts, the two substances being finely powdered and intimately mixed.

### B. Oleum Iodine

The following regarding B. Oleum Iodine is quoted from the circular submitted:

"B. Oleum Iodine—Iodine soluble in mineral oil 5 and 10 per cent. for Nasal, Pharyngeal, Laryngeal, Bronchial, Rectal, etc., and all mucoid affections and abnormal conditions of the mucous membrane."

A sample of B. Oleum Iodine was submitted by the manufacturer and examined. The label on the bottle states that it is 5 per cent. B. Oleum Iodine in mineral oil. This sample has the characteristics of a solution of iodine in liquid petroleum. It is oily and has the characteristic violet color.

Ammonia—B. Oleum Iodine, since it is presumed to be a solution of B. Iodine, was examined for ammonium compounds. A small quantity was mixed with an equal volume of strong sodium hydroxid solution and heated. No ammonia was evolved. A few crystals of ammonium chlorid were added to a little of B. Oleum Iodine and treated as above. Ammonia was readily detected.

Iodine—5.255 gm. B. Oleum Iodine was dissolved in chloroform and placed in a separator. A solution of potassium iodid was added and the iodine titrated with tenth-normal sodium thiosulphate solution. It required 3.5 c.c. indicating 0.85 per cent. iodine.

The conclusion is that B. Oleum Iodine is a simple solution of iodine in liquid petrolatum to the extent of 0.85 per cent., and not 5 per cent. as claimed. Furthermore, it is not a solution of B. Iodine since no ammonium compound is present.

The preceding report was sent to the B. Iodine Chemical Company. The following reply was received:

Your letter of the 21st inst., received and contents noted and cannot quite agree with your report.

Reasons why:  $NH_4I$ , a Nitro Hydrate Iodid;  $NH_4I_2$ , a Nitro Hydrate Iodate; and  $NH_4I_2I_2$ , Per Iodid, a molecular compound, which I claim, they all

(Continued on Adv. Page xviii)



## Surgical Catgut Ligatures

THE Armour processes for preparing Surgical Catgut Ligatures are such that the surgeon's confidence may be safely placed in their strength, smoothness and sterility, three vital points to the operator.

"Death to the bacillus" begins with the green gut and ends only when the final application of heat is given the suture hermetically sealed in a tube.

The Armour Surgical Catgut Ligature, plain and chromic, 60-inch lengths, are supplied in sizes Nos. 000 to 4 inclusive, \$2.50 per dozen.

### A Post-operative Aid to Prevent Gas Pains

*Pituitary Liquid (Armour)*. A physiologically standardized isotonic solution of Posterior Pituitary active principle.

For surgical use, 1cc ampoules  
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*We are headquarters for the  
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# RADIUM SERVICE

## By the Physicians' Radium Association of Chicago

Established to make Radium more available in the Middle States and to furnish advice, based on the most extensive observations, about the approved therapeutic uses of Radium. Maintains the equipment, both large and complete in its make-up, that is needed to meet the special requirements of any case in which Radium Therapy is indicated, and invites any responsible physician to avail himself of its Service. Radium sent out, or treatments may be referred here. Moderate rental fees charged.

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(Continued from Page 102)

being of NH group, so what can be the objection of Nitrogen Hydrate of Iodine? Of course when your chemist, with the aid of heat, drove off all the Iodine, he naturally brought it back to a  $\text{NH}_4\text{I}$ . There's where he gets the A.M. I claim a molecular compound.

The Oil of Iodine I sent you by mistake was a 1 per cent. and not a 5 per cent. as marked. I claim it is made from the resublimed Iodine in mineral oil and not the B. Iodine. I claim a 5 per cent. has heretofore never been accomplished, so I therefore can claim something new.

Tr. Iodine contains Alcohol and Potash as a base, the alcohol a dehydrater and Potash an escharotic, and all other soluble Iodines like the tincture have a metallic base. Mine has not. My iodine is compatible almost with all the salts, alkaloids, tannates, and even the metals. You can't say that for the tincture or the others. Now why should mine not be superior to others?

Preparations as yet are not on the market and a few pamphlets were printed to meet with the requirements of your rulings and approval and shall be corrected if we only can agree on a proper name as you may suggest.

Yours very truly,

The B. Iodine Chemical Co.

By John Bohlander, A.M., M.D.

P. S.—We are sending you under separate cover another sample of the Oil of Iodine which is a 5 per cent. solution, and allowing for deterioration will test at least 4 per cent.

The referee in charge of the preparations submitted the above letter to the Council with the following comments:

"The principal statements in the letter are essentially erroneous or misleading: Mixtures or double salts of ammonium iodid and iodine were not discovered by Dr. Bohlander, and are nothing new. Watery solutions of iodine by means of an iodid have long been known and used in the form of Lugol's solution.

"There is no evidence that ammonium iodid is less irritating than potassium iodid. On the contrary, ammonium salts are generally more irritating than the corresponding potassium salts. B. Iodine is not compatible with alkaloids, but behaves essentially like Lugol's solution. The A. M. A. Chemical Laboratory reports that the new sample of B. Oleum Iodine contains only 1.2 per cent. of free iodine, instead of the claimed 5 per cent. It is therefore somewhat weaker than the iodine petrolatum prepared by the A. M. A. Chemical Laboratory (Reports Council Pharm. and Chem., 1917, p. 88)."

However good Dr. Bohlander's intentions may be, the statements that he makes about his products are misleading or erroneous, and the products are ineligible for N. N. R.

Advertising is a necessary substitute for salesmen called to the colors.

During December, 1918 and January, 1919, the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion with New and Nonofficial Remedies:

#### Non-proprietary Articles:

Benzyl Benzoate.

Emetine Bismuth Iodine.

#### Abbott Laboratories:

Emetine Bismuth Iodine—Abbott.

#### Hynson, Westcott and Dunning:

Benzyl Benzoate—H. W. and D.

Solution of Benzyl Benzoate, Miscible—H. W. and D.

#### Merck and Company:

Diethylbarbituric Acid—Merck.

Diethylbarbituric Acid—Merck Tablets, 5 grains.

Sodium Diethylbarbituric Acid—Merck.

Sodium Diethylbarbituric Acid—Merck Tablets, 5 grains.

#### H. K. Mulford Company:

Bismuth Emetine Iodine—Mulford.

Cachets Bismuth Emetine Iodine—Mulford, 2 grains.

#### E. R. Squibb and Sons:

Chlorinated Eucalyptol—Squibb.

#### Takamine Laboratory:

Arsaminol.

Arsaminol 0.1 Gm. Tubes Arsaminol 0.4 Gm. Tubes.

Arsaminol 0.2 Gm. Tubes Arsaminol 0.5 Gm. Tubes.

Arsaminol 0.3 Gm. Tubes Arsaminol 0.6 Gm. Tubes.

#### Dermatological Research Laboratories:

Neoarsenobenzol.

#### Guisepe W. Guidi:

Ittiolo.

#### Merck and Co.:

Digitan.

Digitan Tablets,  $1\frac{1}{2}$  grains.

Quinine Ethyl Carbonate—Merck.

#### Monsanto Chemical Works:

Chloramine-T, Monsanto.

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## MARRIAGES

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A pretty wedding was solemnized in Chicago, Thursday, January 2, when Dr. Kenneth Murchison, of Waveland township, and Miss Mary Murchison of Scotland, took upon themselves the vow that united them for life.

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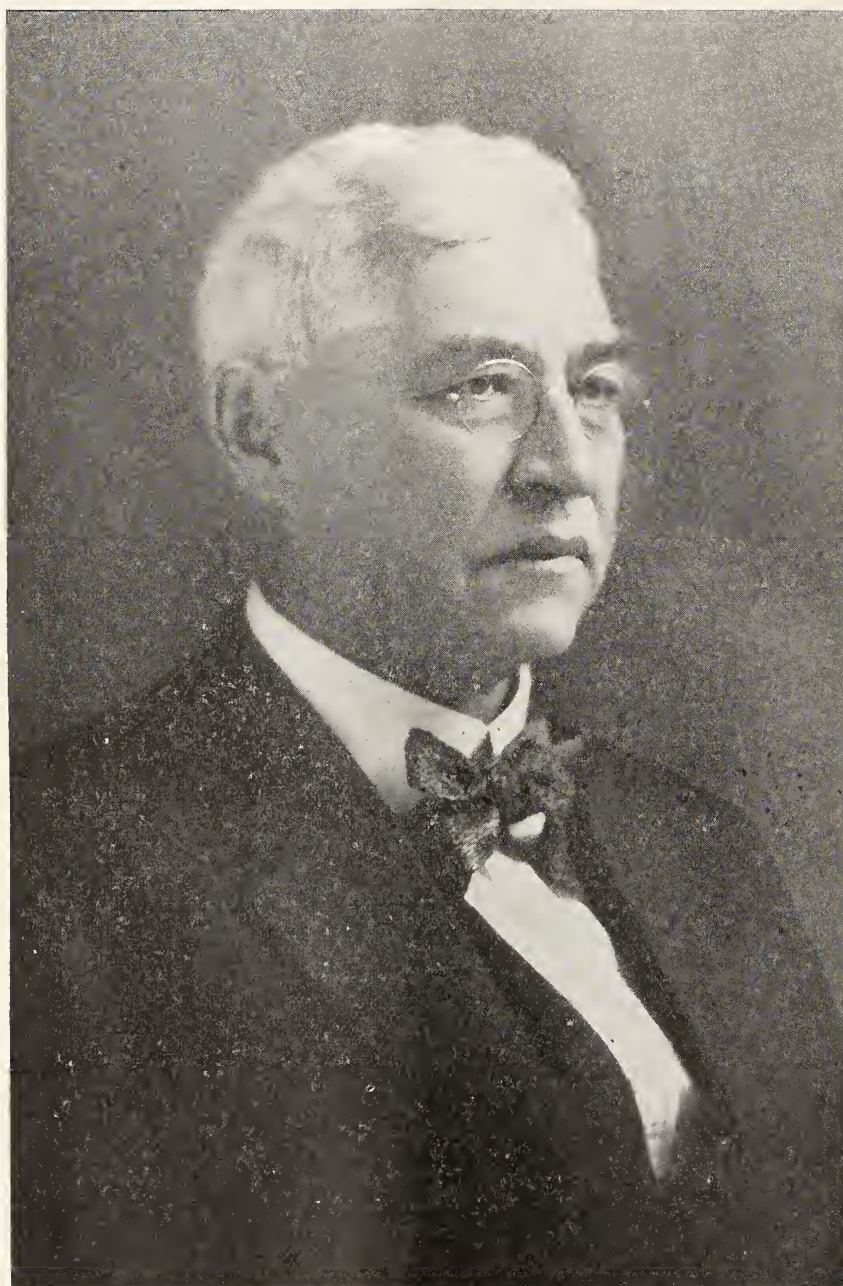
## CHANGES OF LOCATION

---

Dr. W. E. Lyon of Garden Grove has removed to Newton.

Dr. Robert B. Armstrong of Sioux City has located in Ida Grove.





MAX E. WITTE, M.D.

PRESIDENT

IOWA STATE MEDICAL SOCIETY

1918-1919

# The Journal of the Iowa State Medical Society

VOL. IX

DES MOINES, IOWA, APRIL 15, 1919

No. 4

## Iowa State Medical Society

### Sixty-Eighth Annual Session

Des Moines  
May 7, 8 and 9, 1919

#### Program

##### OPENING EXERCISES

Wednesday, May 7  
9:00 a. m.

Call to Order by the President—

MAX E. WITTE, M.D., Clarinda

Invocation— REV. CHARLES ELMER CHAPLER, Des Moines

Address of Welcome for the City—

MAYOR TOM FAIRWEATHER, Des Moines

Address of Welcome for the Profession—

JOHN H. PECK, M.D., Des Moines

Response—

H. C. ESCHBACH, M.D., Albia

##### SCIENTIFIC PROGRAM

Section on Medicine—

Chairman, GEORGE W. KOCH, M.D., Sioux City

Section on Surgery—

Chairman, NATHANIEL G. ALCOCK, M.D., Iowa City

Wednesday, May 7

9:30 a. m.

1. Recognition and Treatment of Labor Injuries—  
LAWRENCE E. KELLEY, M.D., Des Moines, *twenty minutes*  
Discussion opened by A. C. PAGE, M.D., Des Moines, *five minutes*

2. Gastric Ulcer from the Standpoint of the General Practitioner—  
CHARLES W. SANDERS, M.D., Northwood, *twenty minutes*  
Discussion opened by DAVID N. LOOSE, M.D., Maquoketa, *five minutes*

3. Surgical Management of Gastric and Duodenal Ulcers—  
JOHN E. O'KEEFE, M.D., Waterloo, *twenty minutes*  
Discussion opened by JOHN E. BRINKMAN, M.D., Waterloo, *five minutes*

4. Diabetes—

WILLIAM C. PHILLIPS, M.D., Clarinda, *twenty minutes*  
Discussion opened by WM. E. SANDERS, M.D., Des Moines, *five minutes*

Wednesday, May 7

1:00 p. m.

5. Address of the Chairman of the Section on Surgery: The Diagnosis of Stone in the Upper Urinary Tract—

NATHANIEL G. ALCOCK, M.D., Iowa City, *thirty minutes*

6. The Reconstruction Problem for the Disabled Soldier—

MAJOR JOHN L. PORTER, Chicago (*By Invitation*)

##### Symposium on Intestinal Obstruction

7. The Pathology of Intestinal Obstruction—

M. J. KENEFICK, M.D., Algona, *twenty minutes*

8. The Diagnosis of Intestinal Obstruction—

WM. A. ROHLF, M.D., Waverly, *twenty minutes*

9. The Surgical Treatment of Intestinal Obstruction—WM. W. BOWEN, M.D., Fort Dodge, *twenty minutes*

Discussion of the Symposium on Intestinal Obstruction  
opened by GEORGE E. DECKER, M.D., Davenport, *five minutes*

10. The Gall-Bladder from the Surgeon's Standpoint—OLIVER J. FAY, M.D., Des Moines, *twenty minutes*  
Discussion opened by WILLIAM JEPSON, M.D., Sioux City, *five minutes*

Adjournment

4:00 p. m.

Meeting—House of Delegates

Wednesday Evening, May 7

Social Entertainment

Thursday, May 8

9:00 a. m.

11. Oration in Medicine—

JAMES R. GUTHRIE, M.D., Dubuque, *thirty minutes*

12. Carcinoma of the Rectum—

WILTON W. MCCARTHY, M.D., Des Moines, *twenty minutes*  
Discussion opened by J. LYNN CRAWFORD, M.D., Cedar Rapids, *five minutes*

### 13. Rest in the Treatment of Pulmonary Tuberculosis—

HERBERT V. SCARBOROUGH, M.D., Oakdale, *twenty minutes*  
Discussion opened by J. W. KIME, M.D., Fort Dodge, *five minutes*

### 14. The Status of Roentgenology in the Diagnosis of Incipient Tuberculosis—

ARTHUR W. ERSKINE, M.D., Cedar Rapids, *twenty minutes*  
Discussion opened by THOS. A. BURCHAM, M.D., Des Moines, *five minutes*

### 15. Address of the Chairman of the Section on Medicine: Encephalitis Lethargica—

GEORGE W. KOCH, M.D., Sioux City, *thirty minutes*

### 16. Epilepsy—

EDWARD M. WILLIAMS, M.D., Sioux City, *twenty minutes*  
Discussion opened by M. N. VOLDENG, M.D., Woodward, *five minutes*

**Thursday, May 8**

**1:30 p. m.**

### 17. Statistics of Rejections and Their Causes in the Recent Draft—

CHARLES S. GRANT, M.D., Iowa City, *twenty minutes*  
Discussion opened by W. W. Pearson, M.D., Des Moines, *five minutes*

### 18. Address on Medicine: Mental Hygiene and the War—

FRANK PARSONS NORBURY, M.D., Late Acting Medical Director, National Committee for Mental Hygiene, Springfield, Illinois

### Symposium on Influenza

#### 19. Influenza in an Army Camp—

MAJOR E. T. EDGERLY, Camp Dodge, *twenty minutes*

#### 20. The Control of Influenza Epidemics—

JOHN H. HAMILTON, M.D., Iowa City, *twenty minutes*

#### 21. Bacteriology and Pathology of Influenza—

HENRY ALBERT, M.D., Iowa City, *Twenty minutes*

#### 22. The Relation of Influenza to Tuberculosis—

JOHN H. PECK, M.D., Des Moines, *twenty minutes*

#### 23. Surgical Complications of Influenza—

CHAS. J. ROWAN, M.D., Iowa City, *twenty minutes*  
Discussion of the Symposium on Influenza opened by JOHN HAMILTON, M.D., Cedar Rapids, *five minutes*

**Thursday, May 8**

**7:30 p. m.**

#### 24. President's Address— MAX E. WITTE, M.D., Clarinda

#### 25. Address: Great Artists and Famous Anatomists—

JAMES MOORES BALL, M.D., St. Louis

#### 26. Chronic Nephritis in the Young—

WALTER L. BIERRING, M.D., Des Moines, *twenty minutes*  
Discussion opened by ELI GRIMES, M.D., Des Moines, *five minutes*

#### 27. Transfusion as Employed in an Evacuation Hospital in the Advanced Zone, A. E. F.—

LEE E. SHAFER, M.D., Davenport, *twenty minutes*  
Discussion opened by FRANK J. ROHNER, M.D., Iowa City, *five minutes*

**Friday, May 9**

**9:30 a. m.**

### 28. Lung Abscess, Exophthalmic Goiter and Cholecystitis Following Tonsillectomy—

WM. H. RENDLEMAN, M.D., Davenport, *twenty minutes*

Discussion opened by C. P. HOWARD, M.D., Iowa City, *five minutes*

### 29. Oration in Surgery—

FRANK E. SAMPSON, M.D., Creston, *thirty minutes*

### 30. Address on Surgery—

LIEUTENANT-COLONEL DEAN LEWIS, Chicago

### 31. Thyroidectomy—

CHAS. H. MAGEE, M.D., Burlington, *twenty minutes*

Discussion opened by D. C. BROCKMAN, M.D., Ottumwa, *five minutes*

### 32. Post-Operative Tetany—

JOSEPH H. MCGREADY, M.D., Independence, *twenty minutes*

Discussion opened by O. C. MORRISON, M.D., Carroll, *five minutes*

### 33. Surgical Treatment of Arthritis—

WILLARD T. CONLEY, M.D., Sioux City, *twenty minutes*

Discussion opened by JOHN C. ROCKAFELLOW, M.D., Des Moines, *five minutes*

### OPHTHALMOLOGY, OTOTOLOGY AND RHINOLARYNGOLOGY

Chairman

F. E. V. SHORR, M.D., Des Moines

**Thursday, May 8**

**9:00 a. m.**

#### 1. Xerophthalmia—

RALPH PARKER, M.D., Des Moines

### Symposium—Early Education of the Deaf

#### 2. Relation to Day Schools for the Deaf to the State Institutions—

HENRY G. LANGWORTHY, M.D., Dubuque

#### 3. Instruction of the Deaf—

HENRY W. ROTHERT, Esq., Council Bluffs, Superintendent Iowa State School for the Deaf

Discussion opened by J. H. SPENCER, Esq., Dubuque, *five minutes*

#### 4. Otitis Media, Acute Catarrhal—

FRED F. AGNEW, M.D., Independence

#### 5. Clinical Significance of Bacteriological Examinations in Infections of the Ears and Accessory Nasal Sinuses—

MARGARET ARMSTRONG, M.D., Iowa City

#### 6. The Lacrimal Apparatus—

JAMES E. REEDER, M.D., Sioux City

#### 7. The Late Development of the Fusion Sense—

G. F. HARKNESS, M.D., Davenport

#### 8. Diseased Tonsils—

ROBERT M. LAPSLEY, M.D., Keokuk

#### 9. Vestibular Manifestations in Neurological Cases—

W. W. PEARSON, M.D., Des Moines

10. Tonsils I Have Seen—  
CHARLES P. FRANTZ, M.D., Burlington

James Moore's Ball, M.D., Saint Louis, will address the General Session Thursday evening on: Great Artists and Famous Anatomists.

HOUSE OF DELEGATES

Meeting Place—Rose Room, The Chamberlain

Wednesday, May 7  
4:00 p. m.

- Roll Call
- Report of Secretary
- Report of Treasurer
- Report of Council
- Report of Trustees
- Report of Standing Committees
- Memorials and Communications
- New Business
- Election of Committee on Nominations

Thursday, May 8  
8:00 a. m.

- Roll Call
- Reading of Minutes
- Report of Committees
- Unfinished Business
- New Business

Friday, May 9  
8:00 a. m.

- Roll Call
- Reading of Minutes
- Report of Committee on Nominations
- Election
- Report of Committees
- Unfinished Business
- New Business

MEETING PLACES

- Headquarters—The Chamberlain, Seventh and Locust Streets
- General Meetings—Plymouth Church, Eighth and Pleasant Streets
- House of Delegates—Rose Room, The Chamberlain
- Eye and Ear Section—Sunday School Auditorium, Plymouth Church
- Registration and Exhibits—Plymouth Church
- Headquarters for Ladies—The Chamberlain

Rules for Papers

No paper before the Society shall occupy more than twenty minutes in its delivery; and no member shall speak longer than five minutes nor more than once on the same subject. This does not apply to the addresses and orations.

All papers read before the Society shall be its property. Each paper shall be deposited with the

Secretary when read, and if this is not done, it shall not be published.

On arising to discuss a paper, the speaker will please announce his name plainly.

Please remember to REGISTER.

ENTERTAINMENT

Wednesday, May 7

- Reception for the Visiting Ladies at the Golf and Country Club, Two-thirty to Four
- Banquet, Younker's Tea Room, Six-thirty; physicians and their wives and guests

Thursday, May 8

- Theatre Party at the Orpheum, Two O'clock, courtesy of the Chamber of Commerce

OFFICERS  
1918-1919

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- 1st. District—John R. Walker, M.D., Fort Madison.....1920
- 2nd. District—Henry Albert, M.D., Iowa City.....1922
- 3rd. District—W. A. Rohlf, M.D., Waverly.....1921
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- 5th. District—G. E. Crawford, M.D., Cedar Rapids.....1923
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- J. W. Cokenower, M.D., Chairman, Des Moines.....1919
- W. B. Small, M.D., Waterloo.....1921
- T. E. Powers, M.D., Clarinda.....1920

DELEGATES TO A. M. A.

- W. B. Small, M.D., Waterloo.....1919
- J. C. Rockafellow, M.D., Des Moines.....1920
- M. N. Voldeng, M.D., Woodward.....1920

ALTERNATE DELEGATES

- Granville N. Ryan, M.D., Des Moines.....1919
- B. L. Eiker, M.D., Leon.....1920
- J. C. Langan, M.D., Clinton.....1920

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- D. S. Fairchild, M.D., Clinton.....1921
- H. B. Jennings, M.D., Council Bluffs.....1919
- Lewis Schooler, M.D., Des Moines.....1920

## HEALTH AND PUBLIC INSTRUCTION

Paul E. Gardner, M.D., New Hampton.....	1921
Jeannette F. Throckmorton, M.D., Chariton.....	1920
Henry Albert, M.D., Iowa City.....	1919

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D. C. Brockman, M.D.....	Ottumwa
V. L. Treynor, M.D.....	Council Bluffs
M. J. Kenefick, M.D.....	Algona

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T. U. McManus, M.D.....	Waterloo
F. E. V. Shore, M.D.....	Des Moines

## PUBLICATION

D. S. Fairchild, M.D.....	Clinton
W. L. Bierring, M.D.....	Des Moines
C. P. Howard, M.D.....	Iowa City

## SCIENTIFIC WORK

Max E. Witte, M.D.....	Clarinda
Tom B. Throckmorton, M.D.....	Des Moines
Thos. F. Duhigg, M.D.....	Des Moines

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C. J. Saunders, M.D.....	Fort Dodge
J. W. Harrison, M.D.....	Guthrie Center

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Tom B. Throckmorton, M.D.....	Des Moines

## ARRANGEMENTS

Max E. Witte, M.D.....	Clarinda
Tom B. Throckmorton, M.D.....	Des Moines
Thos. F. Duhigg, M.D.....	Des Moines
Oliver J. Fay, M.D.....	Des Moines
Edwin B. Winnett, M.D.....	Des Moines

## State Society Iowa Medical Women

Twenty-First Annual Session  
Des Moines

Tuesday, May 6  
9:00 a. m.

Business Session—

President's Address—

JEANNETTE F. THROCKMORTON, M.D., Chariton

Food Study in Relation to Health—

MISS NEALE KNOWLES, Ames

Welfare of Women and Children in the Coming  
Era—

ROSINA R. WISTEIN, M.D., Cedar Rapids

12:00 m.

Luncheon—Younker's Tea Room  
Guests of Chamber of Commerce

2:00 p. m.

Physical Education in Relation to Health: with  
Demonstration— MISS MARGARET McKEE, Des Moines

The Woman Physician and the New Public Health—  
MABEL ULRICH, M.D., St. Paul

Banquet, 6:30 p. m.

Harris-Emery's Tea Room

Jennie G. Ghrist, M.D., Ames—Toastmistress

Headquarters—The Chamberlain

JEANNETTE F. THROCKMORTON, M.D., Chariton, President  
NELLE S. NOBLE, M.D., Des Moines, Secretary

## THE DES MOINES SESSION

The Sixty-Eighth Annual Session of the Iowa State Medical Society will be held in Des Moines, May 7, 8 and 9. The Scientific Committee, with the help of the Section Chairmen, have endeavored to provide a program which, it trusts, will not only compare favorably with the programs presented in preceding years, but in many ways will evidence the fact that Iowa medicine is well abreast of the times. The Fort Dodge meeting of last year was voted a grand success by those in attendance, and in many ways the environment of the meeting had to do largely in the making of that well merited success. This year, it is the sincere hope of the committee that with the close of the three days session the same kindly feeling towards Des Moines and its hospitality will be entertained.

The Arrangement Committee has selected the Chamberlain Hotel as the headquarters and meeting place of the House of Delegates. The General Meetings of the Society, as well as the special meeting of the Eye, Ear, Nose and Throat Section, will be held in the Plymouth Congregational Church. This alone assures a comfortable and quiet meeting place as can be well attested by those in attendance at the annual session held a few years since. The commercial exhibits will be housed also in the church.

Arrangements have been made also for the tendering of a reception for the visiting ladies at the Golf and Country Club, two to four-thirty, on Wednesday afternoon. In the evening a banquet will be given to the physicians and their wives and guests at Younker's Tea Room, six-thirty o'clock. On Thursday afternoon through the courtesy of the Chamber of Commerce, a theatre party for the ladies will be given at the Orpheum.

The Arrangement Committee, also, feel that it is important to call the attention of the visiting physicians to the necessity of securing their hotel accommodations early. Usually the hotels in Des Moines are sufficient to furnish all the room necessary for visitors at the various conventions held here, but attention is called to the fact that two large hotels are now in construction which in all probability will not be available for use at this time. Also the annual meeting of the Iowa Dental Society will be held in conjunction with the dates of the annual session of the Iowa State Medical Society, hence the occurrence of two such meetings may be the cause of taxing, to some extent, the capacity of the local hospitality. To be on the safe side, secure your reservations early.

IOWA AND DES MOINES

Iowa is FIRST to "Go Over the Top" in every good movement on foot. First, because she has the WEALTH. Second, because she has the WILL.

Do you know that Iowa is the ONLY BILLION STATE?

Farm products.....	\$ 465,793,000
Poultry .....	40,000,000
Dairy .....	50,000,000
Live stock.....	456,653,000

Total.....\$1,012,446,000

CROPS NEVER FAIL IN IOWA. Agricultural wealth is the foundation of all business. Des Moines is known in the business world as "The City of Certainties," because her manufacturers and jobbers NEVER HAVE TO WORRY.

DES MOINES

Just a few points of interest about the city that will entertain you at the next convention.

Des Moines is a live progressive city of 125,000 population which is rapidly growing. Its manufacturing interests are extensive and cover a wide range of commodities including clay products, furniture, fixtures and interior finish, farm equipment, sheet and structural steel construction, furnaces and ventilators, leather goods, wearing apparel, furs and tanned goods, flour and food products. The printing and publishing industry alone is one of immense volume.

Des Moines is a most important jobbing center, from the fact that excellent distributing facilities reach every part of the best buying territory in the world. Practically every staple line of merchandise is handled by Des Moines jobbers, with a total annual business of \$100,000,000.

Des Moines is famous as a retail center and possesses some of the largest and finest department stores. Des Moines is the insurance center of the West being the home of many well-known companies in old line, life, accident, fire and casualty insurance.

An indication of Des Moines business activity is



Plymouth Congregational Church, Place of Meetings

attested by the fact that its postal receipts for the last twelve months were over \$1,800,000.

Des Moines is progressive along educational lines, there being located in the city, twelve colleges and special schools, sixty-seven public schools with a daily attendance of 20,000.

Des Moines covers an area of fifty-four square miles with 717 acres devoted to parks and play grounds. Des Moines is noted for its boulevards, fine residence sections and civic center. A sight-seeing trip is a most pleasing diversion to all convention visitors.

Noteworthy points of interest are the state capitol, state historical building, municipal building, court house, and municipal court, Camp Dodge, military training camp, and Fort Des Moines reconstruction hospital.

The Committee on Arrangements are especially indebted to Mr. George H. Hamilton, associate secretary of the Chamber of Commerce for this concise article on the interesting points concerning Iowa and Des Moines. This Committee, through Mr. Hamilton, wish to take this means to extend to the visiting physicians, their wives and friends, the courtesies of the city during the session of the Iowa State Medical Society, and trust



BE SURE TO SECURE YOUR HOTEL RESERVATIONS EARLY

that as opportunity affords, each and every one will acquaint himself as far as possible with the various commercial, educational and other enterprises connected with the up-building of the local municipality.

Committee on Arrangements,

Max E. Witte, Chairman,

Thos. F. Duhigg,

Tom B. Throckmorton,

Oliver J. Fay,

Edwin B. Winnett.

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## PRACTICE OF MEDICINE IN IOWA FROM 1840 TO 1850

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D. S. FAIRCHILD, M.D., F.A.C.S., Clinton

### PART SECOND

In the first section of our work of recording the adventures of early medical practitioners in Iowa, we have outlined some of the most important facts in the lives of seventeen men all of whom we believe were graduates of medical colleges in good standing. What their daily lives were and how they practiced medicine is left to the imagination of the reader.

There are still living, men whose experience goes back far enough to have an appreciation of what the practice of medicine on horseback means, but few can fully understand what a round of perhaps one patient visits meant, when three or four days were consumed and from 50 to 200 miles were traveled through mud or drifts, guided only by general direction, to meet perhaps, the most difficult and trying cases, with no one to advise, or with whom to divide responsibilities. This did not apply only to the men just mentioned, like Dr. J. M. Robertson, whose practice carried him all the way from Cedar Rapids to Keokuk, but also the medical practitioners who came in 1840-1850, or for the following twenty years in western Iowa.

In the decade from 1840 to 1850 an increasing number of physicians emigrated to Iowa to seek homes, and for the definite purpose of practicing medicine. The greater number of them had but recently graduated from medical colleges, or, after a short period of practice in, or near the home town, feeling their opportunities were few, sought larger fields in the new West. Iowa appeared a fruitful field for the young physician with an ambition to succeed in many ways. Many met with disappointments and some returned to a more congenial professional atmosphere in older settled communities. The majority, however, struggled on to secure hoped for later rewards.

It thus happened that many pioneer settlements

secured medical practitioners of a selected class, men of strength, courage and character.

It of course, often came about, that failures in other fields, poorly educated doctors, arrant quacks and unscrupulous charlatans of every species and character joined in the migration to the new country, who, after a short period of uncertain success disappeared. Of these men we have no record.

From 1840 to 1850, when the Iowa State Medical Society was organized, a group of notable practitioners of medicine located in Iowa. We have endeavored to seek them out and to assign to each the share due him in civic welfare, professional organization and progress. It may be assumed that organization is essential to progress. Civic organization became necessary as soon as settlement fairly began for the protection and welfare of those who had cast their lot in a new country and for those who were to come later. Isolated enterprise and individualistic effort could contribute but little to progress in general or to the community or state.

Medical practice has generally been looked upon as an individualistic effort to secure benefits to the individual members of the community; that the medical practitioners' function was secondary and subordinate to the immediate needs of the afflicted and the unfortunate. In later times this view has changed in a very material way. Public health has been found so essential to community progress, that a disregard of this important fact has invariably led to misfortune and failure. It was only when medical organization had reached a high degree of development, and a dissemination of scientific knowledge of the nature and cause of diseases had come about, that the public began to see and appreciate the immense value of organized medical cooperation. It is greatly to be regretted that only a minority of the public can appreciate this even now. It is fortunate, however, that the minority having a clearer vision of public needs constitutes a predominating influence in public affairs and are slowly clearing up the waste places.

The physicians who came to Iowa between 1840 and 1850 to seek homes, represented the highest type of men, who were earnestly seeking fields of usefulness with the prospect of small pecuniary rewards, at least in the near future, but new experiences were particularly attractive to young men, as these men were. Some left an honorable record and many disappeared, probably attracted to other fields. Success in those days meant a degree of personal sacrifice, courage and determination, not ordinarily seen, and what success and reputation was finally secured

was well earned. Doctors under these conditions, become resourceful and self-reliant, and were able to meet emergencies to a degree rarely seen today; while not possessing a great fund of scientific knowledge, they developed into strong men who wielded a great influence in their communities.

It was our privilege to know many of these men; they were not only wise physicians but also useful to a rare degree in public service in township, city, county and state service, probably not as much as officials, but influential in the selection of office holders and in directing the policies that had public welfare in view. Little opportunity was afforded for contributions to medical science and there seems to have been little disposition to record, "interesting cases," or personal experiences, unless they were of real interest. Their work was a silent influence that contributed to the general betterment of the community of which very little has been recorded and the name often remains only as a tradition. All this may be said of multitudes of men who early came to Iowa, but the medical practitioner had an immense advantage over most others in that his training fitted him to measure welfare programs by more accurate and logical standards.

Dr. Jess Bowen came to Iowa City in 1840. He was born in Virginia in 1806, came to Iowa from Indiana where he had served as state senator. Dr. Bowen did not limit himself to the practice of medicine, but was active in public affairs. In 1840 he was made presidential elector by the Whig party.

On November 19, 1857 Governor James W. Grimes officially declared that, "the Capitol of the State of Iowa to be established under the Constitution and Laws of the State at Des Moines in Polk County." There were no railroads in the state, many streams had no bridges and the river bottoms had a bad reputation, particularly Skunk river bottom and the problem of moving the state property from Iowa City to Des Moines was a difficult one. There were four large safes to be transported, but no contractor was willing to undertake the task. Finally Dr. Jess Bowen accepted the contract and after many days of hard and tedious work the safes were delivered safely in Des Moines. The state treasurers' safe was much the largest and very heavy. During the journey it was left on the open prairie near Little Four Mile Creek in Polk County for several days and nights until the storm abated and the ground was frozen sufficient so that it could be handled on a large bob sled. When it arrived in Des Moines it was drawn by ten yoke of oxen.

In 1860 Dr. Bowen took his seat in the Seventh

General Assembly as senator from Johnson county. At the breaking out of the Civil War, Dr. Bowen was Adjutant General of the state. He was afterward appointed paymaster in the United States Army and was the last paymaster to be mustered out of the service.

Dr. S. M. Ballard was born in Virginia in 1812, came from Ohio to Iowa City in 1842. He was from the Medical College of Ohio. In 1854, Dr. Ballard abandoned the practice of medicine and removed to Audubon county, Iowa, where he engaged in agriculture on a large scale.

In 1875, five candidates for governor appeared before the Republican state convention with Gen. James B. Weaver in the lead. Dr. S. M. Ballard placed in nomination Samuel J. Kirkwood. A delegate inquired by what authority the name of the governor had been used. Rising to his full height the stalwart Ballard answered, "By authority of the great Republican party of Iowa," (Brigham's history of Iowa). Thus showing how easily a doctor could set aside political traditions in the interests of public good. The nomination and election for a third term as governor insured Governor Kirkwood's election to the United States Senate.

On account of his gigantic stature and the size of his nose, Dr. Ballard was familiarly known by the title of "Big Medicine."

Dr. William Vogt was one of the most noted of early Iowa practitioners of medicine. His activities were limited to his profession. For twenty-five years he was the most loved physician in Iowa City and his memory was cherished for many years after his death in August, 1873, at the age of fifty-five years.

Dr. Vogt a native of Prussia, began practice in Iowa City in 1848. It is said that he never presented a bill for medical services, but devoted himself to his patients and his practice without thought of money compensation. His modesty, his willingness to render service, his devotion left a place never quite filled in the professional annals of Iowa City, which has been adorned by some of the noblest men in the profession of Iowa.

Dr. M. J. Johnson came to Iowa City in 1846. He was born in Jefferson county, New York, in 1815, graduated from the medical department of the University of New York. Dr. Johnson had previously practiced eleven years in Ohio. After two years practice in Iowa City he returned to Ohio.

Dr. Wm. McCormick was an early settler in Johnson county. He practiced medicine in Iowa City for a few years and about 1850 removed to California.

Dr. Nathan Udell came to Appanoose county in 1849. He was born in Susquehanna county, Pennsylvania, February, 1817. He was educated as a physician and came to Iowa as a pioneer practitioner of medicine. On April 1, 1844 the first election was held in Appanoose county at which nine votes were cast. In 1846 Centerville was laid out under the name of Chaldea but this name was not satisfactory to the citizens and at a large gathering, Dr. W. S. Manson who was an admirer of Governor Senter of Tennessee "in an eloquent address proposed the name of Senterville." This being satisfactory to the audience a petition was sent to the legislature and the name was changed, but by some mistake, the name was spelled Centerville. This is the only mention we are able to find of Dr. W. S. Manson who is said to be the first physician in Centerville unless Dr. Manson was also a preacher for it is said that Rev. W. S. Manson preached the first sermon in a log cabin on the west side of the river. (Chariton River.) In 1849 when Dr. Udell came to Appanoose county there were but few people to need his services. He was elected to the senate of the Fifth General Assembly in 1854 and in the Eighth and Ninth General Assembly. Served in the regular and extra sessions. During the Civil War; Dr. Udell was for several months surgeon of the Seventh Iowa Infantry. In 1860 he was again elected to the senate and served in the Tenth and Eleventh General Assemblies. He died in Denver April 11, 1903.

The medical history of Linn county began when Dr. Sam Grafton settled at Ivanhoe Bridge about 1840, the exact date is not known, but it is stated that after several years practice he died of typhoid fever in 1847.

In 1841, Dr. Magnus Holmes came to Marion from Crawfordsville, Indiana. He was a man of high order of attainments and gave promise of a highly useful career which was soon cut short by death.

Dr. Henry Ristine, brother-in-law to Dr. Holmes came to Marion in 1842 and practiced medicine in Marion and Cedar Rapids, fifty-one years; truly a long life of service in practically the same community. Dr. Ristine sustained the closest relations to the family life of his people and as the trusted physician had opportunities to observe the elements that make up the strength and the weakness of a community.

Dr. Ristine did not seek public office, notwithstanding the temptations which must have come to him at times when opportunities for an interesting medical practice were few. His activities were wholly welfare, social and professional in character. The opportunities such as they were,

gave Dr. Ristine a reputation as a surgeon which led to his appointment as chief surgeon for the Burlington, Cedar Rapids and Northern Railway and district surgeon for the Chicago and Northwestern Railway.

Dr. Ristine early recognized the need of a hospital in a growing community which had for so many years depended on home treatment for serious medical and surgical cases, and for the care of injured industrial workers, with whom he had much to do.

Hospitals at that time were in no great favor with the public generally, and strange as it may seem to us now, such welfare institutions were extremely difficult to organize, but with the assistance of his friend, Judge Green, St. Luke's had a beginning and Dr. Ristine was made a member of the first consulting staff.

In medical societies he was a leading influence. The Linn County Medical Society was organized in 1859 and Dr. Ristine was one of the five original members. In 1873 he became a member of the Iowa State Medical Society and in 1877 was elected its president.

Dr. Henry Ristine was born September 21, 1818, near Albany, Ky. Moved with his parents into southern Indiana when two years of age. Attended Wabash College at Crawfordsville, Indiana, but did not finish the course. Graduated at the Ohio Medical College in 1851 after having practiced medicine in Marion, Iowa, for several years; having located at the latter place in winter of 1842. Was married to Miss Katherine McMaster in Crawfordsville, Indiana, in 1844, and died at his home in Cedar Rapids in 1893.

Dr. John McMaster Ristine died at his home in Cedar Rapids of angina pectoris, January 8, 1919.

Dr. Ristine was born in Marion, Linn county, Iowa, October 17, 1847. He received his literary training at Wabash College, Crawfordsville, Indiana, which institution conferred the A.M. Degree in 1908. Dr. Ristine received his medical degree from Bellevue Hospital Medical College, New York in 1876. Immediately after graduating in medicine he began practice with his father, Dr. Henry Ristine who began practice in Marion in 1842. Both father and son represented the highest ideals in medicine and surgery and for seventy-seven years the Ristines were recognized as among the leading physicians and surgeons of Iowa. Soon after the location of Cedar Rapids the Ristines removed from Marion to the latter city and became identified with the building of the town and its industries, and were medical advisors to many of them. Surgeons for the Burlington, Cedar Rapids and Northern Railway. Afterwards the C. R. I. & P.; the C. & N. W.



DR. HENRY RISTINE  
Born September 21, 1818  
Died, 1893



DR. JOHN McMASTER RISTINE  
Born October 17, 1847  
Died January 8, 1919

Ry.; the Illinois Central; Street Railway; Sinclair Packing House; the Quaker Oats, etc.

Dr. Henry Ristine died in 1893 and the Ristine firm was continued under the name of Ristine and Ruml. During the long period of seventy-seven years the Ristines and Ruml enjoyed a large practice among the most influential people of Cedar Rapids and their name became a household word. Dr. John Ristine continued practice up to the last day of his life. Under a mistaken idea that doctors should be rich in money and lands, Dr. John allowed the last years of his life to be clouded with the anxieties of business speculations.

A great shock came to Dr. Ristine only a few weeks before his death in the death of his son Lieut. Richard Ristine in an aviation accident at Gerstner field.

Dr. Ristine is survived by Mrs. Ristine and one son who is serving the United States Army in France.

Dr. J. F. Ely in 1847 and Dr. S. D. Carpenter in 1849 came to Linn county and were among those who became identified with the county business affairs in the decade between 1840 and 1850 and afterward. Both came as physicians and practiced for a few years with success, but soon became interested in the business and financial affairs of Cedar Rapids and abandoned the practice of medicine. These gentlemen had an important part in the development of the city which had the good fortune to attract men of broad and liberal views, whose influence became a valuable heritage which was felt and appreciated long after they ceased to be active factors on the affairs of the city and county. Few names are remembered with greater affection than those of Dr. Ely and Dr. Carpenter.

Dr. Greenburg Ridgely Henry, son of Dr. John F. Henry, was born in Hopkinsville, Ky., September 28, 1828 and died in Burlington, Iowa, 1885. Dr. Henry was educated at Jacksonville, Ill.; graduated from the Louisville Medical College; located in Burlington in 1845. Five years later he married Miss Kate Chambers of Jacksonville, Ill. Dr. Henry, in addition to being a skillful physician was a man of business and of affairs in a broad and liberal way. He did much to promote various important enterprises in Burlington; the street railway, steam heating plant, rolling mills, etc. He was much interested in agriculture and imported the best blooded stock from his native state (Kentucky). Dr. Henry was one of the original members of the Iowa State Medical Society and was its first treasurer, which office he held three years. He was a member of the board of trustees of the insane hospital at Mt.

Pleasant for several years. Dr. Henry was interested in public school affairs and for many years was a member of the school board.

Dr. R. H. Wyman was born in Oswego, N. Y., March 24, 1817. Educated at Middlebury College, Vermont and graduated from the Medical Department of the University of Pennsylvania in 1843. Began the practice of medicine at Hagerstown, Pennsylvania, and removed to Davenport, Iowa, in 1846. In 1855 he removed to Keokuk and formed a partnership with Dr. John F. Sanford, which continued up to the time of Dr. Wyman's death in 1881, except for a brief period while in the United States Army.

In 1861, Dr. Wyman was commissioned surgeon of the 21st Missouri Infantry, commanded by Colonel Moore. On the first day of the battle of Shiloh, Col. Moore was seriously wounded in the leg, which rendered an amputation necessary. Col. Moore was placed on board a steamer at Pittsburg Landing, which had been improvised as a hospital, and Dr. Wyman as ranking surgeon had charge of the wounded brought from the Shiloh battlefield to this improvised hospital and there amputated Col. Moore's leg. Consequent on the fatigue and exposure from this service, Dr. Wyman contracted pneumonia and from the protracted illness which followed he was invalided home, and in June, 1862, he resigned from the service and resumed practice in Keokuk where he died in 1887.

Dr. Asa Horr was one of the most distinguished and probably the most scholarly of early Iowa physicians. He located in Dubuque in 1847. Dr. Horr was born in Worthington, Ohio, September 2, 1817. He early showed a strong interest in science and perhaps contributed more to scientific literature than to medical literature. He was not without skill and courage in surgery. In 1875 he removed a large solid tumor of the left ovary together with a fibroid tumor of the uterus at the same operation. It is stated that there were many adhesions and that the tumors were removed with great difficulty. The patient made an uneventful recovery. Dr. Horr performed many difficult operations such as were regarded as legitimate in those days.

Dr. Horr was an active member of the American Association for the Advancement of Science, and was one of the leading observers for the Smithsonian Institute. His most valuable contributions were to Meteorology and to him and Professor Lapham of Milwaukee is due the present method of forecasting the weather employed by the United States Government. Dr. Horr died at his home in Dubuque, June 2, 1896, at the age of seventy-nine years.

Dr. S. E. Reinhart a graduate from Jefferson Medical College came to Oskaloosa in 1846. When the Mahaska County Medical Society was organized in 1856, Dr. Reinhart was elected its first president. It does not appear that he at any time occupied public office, although well fitted by ability and education, but preferred to remain a devoted practitioner of his profession. He was a cultivated gentleman, enjoying the confidence of the public and the affection of the medical profession of his county. He died of pulmonary tuberculosis in 1875.

Two other physicians came to Mahaska county about 1845. Dr. John J. F. Hopkins who later was surgeon of the 33rd Iowa Infantry and Dr. F. W. Coolbridge, both graduates of reputable medical colleges and a Dr. Owen who was not a medical college graduate.

Dr. Edward Whinery (by some the name spelled whinnery) was one of the pioneer physicians of Iowa. He settled at Fort Madison and began practice there in 1841. He was born on a farm in Columbiana county, Ohio, February 27, 1812. His mother was Margery Carroll. She and her sister, Sallie Carroll married two brothers, William and James Whinery. Edward Whinery was the eldest of nine children all of whom grew to adolescence. Four of his five brothers reached ages ranging from eighty-four to ninety years. Edward was the strongest of them all, and but for his death by accident, so all his brothers were wont to say, would have outlived them all. In that early time, the unworn Ohio soil yielded forty bushels of wheat to the acre. Most of the acres were still in oak, poplar, sugar-maple, shell-bark hickory, etc. The "cradling" of the wheat was the heaviest work known. At sixteen no man in that region could keep up with Edward, "cradling."

The Whinerys were Quakers. In 1829 when Edward was seventeen, occurred the schism between the Hicksite and Orthodox Quakers or Friends. He alone, in a dispute over the possession of the meeting house of New Garden meeting, ejected all the Orthodox members, for which violation of Quaker ethics, he was compelled or impelled to profess sorrow to the Hicksite "meeting."

In 1831-32 he studied medicine with his uncle, Dr. Thomas Carroll at Cincinnati and at Maysville, Kentucky. One of his grandmothers was a Murray, the other a McMillan.

Edward Whinery was known as a skillful and daring surgeon. Exceedingly slow in movement, but completing an operation with the rapidity that often characterizes the slow and sure. He was five feet eleven inches in height, and power-

fully built. It was his custom to care for the upper park at Fort Madison, opposite his home which he would mow with scythe. Although constantly driven by a large though not lucrative practice his lack of business ability was as conspicuous as his professional skill was memorable. In the supposed flush time of gold at a premium, he habitually charged \$1.50 per visit. During the Civil War he was prominent in relief work and generally made no charge to the families of absent soldiers, sometimes in cases where the beneficiary was better off in money than himself. His oldest son, Marshall, was a Union volunteer, who later became a physician, dying in 1887 in Wisconsin.

The brothers in Ohio remained Garrison abolitionists, refusing to vote in 1860. Though vehemently anti-slavery, Edward was an active supporter of Lincoln in 1860 and also active in previous years.

The large residence on Third street, Fort Madison, later owned by Mrs. Kretsinger, the prison contractor, was completed by Dr. Whinery in 1860 (a portion of it many years older) and was long a monument of his mastery of detail and thoroughness. It was superintended in every item by him, and was built to endure, projected to collect debts, a business error now well understood. It left him farther in debt than before. His great strength made him over confident, he drove a dangerous horse, and early in February, 1868, he was thrown from his buggy, landing on his head on the frozen ground. Confident in the "purity of his blood," he took care of his own wounds which healed too rapidly. About a week after the accident he crossed the Mississippi river on the ice to visit a patient whose leg he had amputated, a relapse ensued and when Dr. Harvey of Burlington and Dr. Cutler of Keokuk were called erysipelas had set in and they told him to prepare to die. He died February 25, 1868.

The explosion of a steamboat off Nanvoo provided a notable case for him from the public if not from a professional standpoint. In 1911 two beautiful chestnut trees forming one symmetrical top that Edward Whinery had planted as a boy in 1825 on the old Ohio home farm, were struck by lightning, and wrecked, dying.

The above interesting biographical sketch of one of the strong men of early Iowa was written by a son of Dr. Whinery, whom after considerable search, we found in Oakland, Calif. In looking over the published records of the Iowa State Medical Society, we found the report of a case read by Dr. Whinery on the sixth day of February, 1868, at Des Moines, nineteen days before his death. We reproduce the report in full.

It is interesting to know the characteristics of a man of courage and resourcefulness who could under the most unfavorable conditions undertake an operation which would today be regarded as a surgical victory in the best equipped hospital.

On the 28th day of March, 1865, at 8 o'clock a. m., I visited Mrs. S., of Niota, Illinois, a healthy Irish woman about thirty-seven years of age, who, I was told was taken in labor about 10:00 o'clock a. m. on the 27th. The first indication she had of approaching labor was the escape of the waters, soon after which regular labor pains supervened, and an ignorant mid-wife was summoned to attend her. Labor progressed regularly until about 7:00 o'clock in the evening when it was expected the child would be born in a few minutes. She was seized at that time with severe burning lacerating pains, or stitches, as she called them, throughout the abdomen, and the expulsive pains ceased. I found her sitting in a chair, leaning forward at an inclination of about forty degrees, and very unwilling to change her attitude. Her pulse was a hundred and ten, irregular and fluttering; the countenance very anxious and pale, the skin cool and clammy. It was with difficulty I could induce her to assume a position convenient for me to make an examination per vaginam. I caused her however, to be held at an inclination of about forty degrees and passing the digital finger of the right hand into the vagina and the left hand over the abdomen, I found the head of the fetus resting well down on the perineum, but by pressing firmly with my finger against the head, it ascended above the superior strait, and the whole body could be distinctly felt through the walls of the abdomen, she being of spare habit. The motion thus given to the fetus, very much increased the lacerating pains, and she cried out, "These stitches will kill me." My diagnosis was rupture of the uterus, and I informed her and her friends that her condition was very precarious. The mid-wife tried to give her "Muterkorn Thee" (ergot), but the stomach would not take it. The night was very dark and the husband and his friends were afraid to attempt to cross the Mississippi river in a row boat, as it was very high with much drift wood floating; she therefore spent the night in applying new corn whiskey to the abdomen.

I allowed the patient to assume the attitude first mentioned, returned home for my instruments and an assistant, Dr. J. C. Blackburn accompanied me. At 10:00 o'clock a. m., when we arrived, no change had taken place in the patient. My friend Dr. Blackburn thought, from the visible and physical appearances and my representations of the case, that my diagnosis was correct, and we soon agreed upon the propriety on making an abdominal section. Dr. Blackburn administered the chloroform while I was preparing other matters. We placed the patient on her back on a table, and I made the incision on the right of the umbilicus, about six inches in length, through which I removed a large male child (dead of course), and the placenta, both being entirely above

the uterus, which was contracted down into the pelvis. There was very little appearance of hemorrhage. The rupture was in the fundus from the anterior to the posterior wall. The edges of the wound were now brought together by sutures of silk, taking care to include all the structures except the peritoneum; then finishing the dressing with adhesive straps, a compress and a wide bandage. The operation and the dressing were performed in less than five minutes, and the patient placed in bed, still under the influence of chloroform. When she recovered from its effects, she expressed herself as feeling quite comfortable and grateful for her delivery from her intense suffering for so many hours. We expected peritoneal inflammation to supervene, but in this we were happily disappointed.

I visited her on the 29th, and found her comfortable; the pulse had gone down to eighty, and every symptom was favorable; the lochia was moderate in quantity; she had been nearly free from pain and slept well during the night, though she had not taken any morphia and quinia powders left for her, in case irritation and debility set in.

March 30th and 31st continues without an unfavorable system.

On the 3rd of April, she sat up three or four hours in bed. The wound had healed by first intention.

On the 5th, I took out the sutures and continued the adhesive straps, the compress, and bandage; she was then dressed and sitting up.

On the 8th, the lochia ceased and she went about her ordinary housework.

Dr. Edmund Augustus Boyer was numbered among those who were truly pioneers of Mahaska county, and his name will ever be held in grateful remembrance by all who appreciate what the pioneers had to undergo to make the wilderness a happy home for civilized man. Dr. Boyer was a native of Uniontown, Md., born March 31, 1816. At the time of his birth, and for some years afterward, his father, also a physician, was the owner of a number of slaves, but becoming convinced that slavery was a crime, and not wishing to rear his family where they would be surrounded by such evil influences, and where they would be dependent upon others, he liberated his slaves, after liberally providing for them, and moved with his family to Ohio. Here the Doctor grew to manhood and entered the medical profession.

In 1840 Dr. Boyer was united in marriage with Miss Mary Wiley, of West Lake, Ind., but a native of Vermont, and immediately moved to Iowa, locating in Van Buren county, where he remained three years. In April, 1843, he came to Mahaska county, picked out his claim, and in May following, just as soon as the country was thrown open for settlement, moved his family here, becoming one of the first, if not the first, permanent set-

tlers of the county. Dr. and Mrs. Boyer reared a family of nine children; Mrs. Dr. Scott, Mrs. John R. Barnes, Oskaloosa; Mrs. E. B. Young; William E. Boyer; Richard M. Boyer; Frank D. Boyer; Edmund A. Boyer, Jr.; Fannie, wife of Smith McPherson, the distinguished attorney general of Iowa and later Federal judge for the southern district of Iowa, and Thomas H. Boyer.

Dr. Boyer practiced medicine fifteen years, when he retired from active practice and devoted his entire attention to his farm and store. He was a close reader and had a deep insight in matters of general and public interest. While a zealous politician he never sought public affairs or position.

In early life Dr. Boyer was identified with the Whig party, but being strongly prejudiced against slavery he joined in the organization of the Republican party of which he was an active member until he believed that the Greenback Labor party more truly represented the interests of the people when he became an active member of the new political organization and worked in its interest as he had in the earlier days of the Republican party. Strong in his political views he made both friends and enemies, but all respected him as a man of sterling worth, true to his friends, kind and provident to his family, and always ready to extend a helping hand to the unfortunate. For nearly half a century he was a resident of Mahaska county. Every change that was made in transforming the wilderness into a thickly settled and prosperous country, he witnessed and participated in. The home which he founded was a hospitable one, and from it have been sent forth some who occupy useful and honorable positions in town, county and state. Dr. Boyer, after an illness of more than a year's duration, died February 5, 1886, at his farm in Scott township, on which he first settled when he came to this county.

A group of pioneer physicians located in Washington county between 1840 and 1850 whose names do not appear in the records of Iowa history, but are worthy of record.

Dr. Samuel Nealy located in Washington county in 1840. He was a graduate of Jefferson Medical College and served as a surgeon with the American forces in the war of 1812. He died in Washington county in 1871.

Dr. Cleaver and Dr. Lefler came to Washington county about 1840. The former moved to Columbus City where he died about 1860 and the latter died in Washington, Iowa, 1843.

Dr. W. H. Rousseau was born in Kentucky in 1816, came to Washington in 1844, read medicine with Dr. W. B. Stone. Later graduated from the College of Physicians and Surgeons, Keokuk;

married Electa Atwood in 1845. Practiced in Washington until his death in 1893.

Dr. Wm. McClelland came to Washington in 1845 and Dr. O. H. Prizer came to Brighton in 1845. Dr. McClelland is said to have introduced Fowler's solution in the treatment of malarial fever on account of the high price of quinine.

Dr. Horace Carley located in Brighton in 1839 and died the same year.

The medical history of Louisa county has many features of interest. As early as 1852 a county medical society was organized with J. M. Robertson as president. Dr. Robertson was one of the most distinguished of Iowa's pioneer physicians. Dr. G. W. Taylor was its first secretary. Other prominent members of the society were Dr. H. T. Cleaves and Dr. John Bell, Jr.

Dr. John Bell, Jr. practiced medicine in Wapello for several years and removed to Davenport. Some years later he moved to Dallas, Texas, where he died in 1888 and was buried at Wapello. Dr. Bell was at one time surgeon general of Iowa. During the Civil War served as surgeon of the Ninth Iowa Cavalry. Was chief surgeon on General Hunts' staff. Served also as U. S. A. medical director, Department of Texas. He was a member of the American Medical Association. Dr. Bell was particularly noted as a skillful surgeon, as surgery was known at that day; was fearless in surgical undertakings where the interests of the patient were concerned; one operation in particular attracted much attention: On Christmas day, 1854, Dr. Bell was called to see L. W. Bates who had swallowed a bar of lead in undertaking a slight of hand performance while in a partially intoxicated condition. The bar was ten inches in length and weighed nine and one-half ounces. After observing the patient for ten days and being satisfied that the bar was in Bates' stomach, Dr. Bell with the assistance of Drs. J. M. Robertson, Cleaver, Graham and Taylor made an abdominal section, exposed the stomach which was drawn into the wound, opened and the bar removed. The wound in the stomach was closed by interrupted sutures, returned into the abdomen and the external wound closed by interrupted sutures supported by adhesive plaster (presumably without drainage). The sutures were removed on the seventeenth day. The patient made an uneventful recovery. The operation consumed twenty minutes.

The case was first published in the Iowa Medical Journal for April, 1855 and in the Boston Medical and Surgical Journal, January 2, 1860.

Dr. T. G. Taylor, Dr. J. B. Latta, and Dr. B. G. Neal began practice in Louisa county prior to 1850. Dr. Taylor does not appear to have been

a graduate of a medical college but was a successful practitioner in Wapello until he removed to Muscatine where he died in 1887 or 1888.

Dr. Latta was born in Ohio, November 26, 1823, graduated from the Ohio Medical College in 1849 and located in Grandview, Iowa, the same year. He later moved to San Diego, California, where he died November 26, 1896.

Dr. B. G. Neal located in Columbus City in 1848 or 1849 and practiced without a medical diploma until 1856 when he received his medical degree from Rush Medical College. Dr. Neal early in 1860 near Columbus City performed a Cesarean Section: the first it is said ever performed in this section of Iowa.

Dr. Hiram Thomas Cleaver should be enumerated as one of the best known and respected among Iowa's pioneer physicians. His connection with the Keokuk College of Physicians and Surgeons brought him in close relation with a large body of medical students who remembered Dr. Cleaver with great affection.

Dr. Cleaver was born in Centerville, Washington county, Pennsylvania, February 17, 1822. His parents were consistent members of the Society of Friends. He graduated from the New Lisbon Seminary, New Lisbon, Ohio in 1841 and graduated in medicine from the College of Physicians and Surgeons, Keokuk in 1862 and from Chicago Medical College in 1872. It appears that after graduating from the New Lisbon Seminary, Dr. Cleaver entered the office of Dr. T. Green of New Lisbon and after a period of pupilage under his preceptor according to a custom quite common in early days, he entered into a partnership with his preceptor and practiced with him several years, and finally received his diploma from Keokuk when he was elected professor obstetrics and diseases of women. In 1848 Dr. Cleaver came to Wapello where he remained in the practice of medicine fourteen years when he moved to Keokuk. While a resident of Wapello or from 1854 to 1858, Dr. Cleaver represented Louisa county in the Iowa Senate. He was one of the founders of the Louisa County Medical Society. Was a member of the American Medical Association and in 1874 he was elected president of the Iowa State Medical Society.

Dr. Cleaver in 1887 on account of poor health, removed to Las Vegas, Hot Springs, New Mexico. Soon after he was appointed surgeon to the Atchison, Topeka and Santa Fe Ry. Co., which position he held at the time of his death, January 11, 1888.

Dr. John Elbert was born in Fleming county, Kentucky, May 16, 1806. At the age of six years he removed with his father Dr. J. D. Elbert, sen-

ior, to Logan county, Ohio, then almost a wilderness, and when hostile bands of Indians exercised a power all but agreeable to the new settlers, who imperiled their very existence by day and night, that the present generation might enjoy peace and tranquility.

At this time the war of 1812 broke out, and Dr. Elbert, senior, tendered his services to the government in the capacity of physician and surgeon, rendering effective service in the army, while the young boy remained at his father's cabin to assist as best he could in the protection of the family. The education of Dr. Elbert was such only as the common schools of the neighborhood afforded. Nothing daunted by the limited means and meagre facilities for the acquirement of knowledge in that region of country, he resolved to be a man of mark, and accordingly availed himself of the books of his friends, who were more fortunately circumstanced. In 1829, he received a license from the hands of Dr. Daniel Drake of Cincinnati, after which he established himself as a practitioner of medicine in the State of Ohio, where he pursued his profession with great energy, until the year 1840, when he sought the then far west, a field affording greater latitude to his boundless ambition, which was not restricted to the profession alone; his influence was felt at an early day in the councils of the territorial legislature to which he was elected in 1842, and of which he subsequently became president, likewise, in all matters pertaining to the development of the agricultural interests of the state, was a devoted member of the Masonic fraternity, as well as a shining light in the Methodist Episcopal Church. His indomitable will, coupled with confidence in the recitude of his intentions, made him generally efficient and successful in carrying to completion the varied projects which he originated, an element in his character to which was due his eminence as a practitioner and surgeon.

In addition to the license from the Cincinnati college, two honorary degrees were conferred upon him. One by the faculty of the Missouri University, and one by the trustees of the University of Pennsylvania. As a surgeon, he acquired extensive reputation in southern Iowa and northern Missouri, for the bold use of the knife, as well as skill in general management. By his patients he was especially beloved for his prompt attention and kind sympathies. In his friendships he was ardent and wholly disinterested, never counting the cost when he could oblige a friend. Hospitality was his crowning virtue. Nothing afforded him greater delight than congenial company about his table or fireside. His

jovial nature and seemingly inexhaustible fund of anecdote, conjoined with a character and manner so eccentric, made him wonderfully entertaining, while his laughter-provoking originalities were a source of much surprise to his friends, who could never really anticipate him. In the review of his many virtues and excellencies of character, we have forgotten to record his faults. If he had any they should be ascribed to his eccentricities.

Dr. Elbert died at Keosauqua, Van Buren county, Iowa, on the 28th of March, A. D., 1865, after an illness of three weeks. His brethren of the Masonic order, together with a vast throng of his brethren in the Lord, performed the last sad rites and solemn services of religion, in a manner befitting his name and fame, and in silence deposited his remains beneath the cold clay from whence it sprang.

Dr. McGugin was born in West Middleton, Washington county, Pennsylvania, in the A. D., 1807. Acquired his literary education under Alexander Campbell, after the completion of which he commenced the study of his profession, under the supervision of Dr. Andrews, an ancient medical gentleman of Steubenville, Ohio, and graduated at one of the oldest medical schools of the country—the medical department of the University of Maryland, at Baltimore. In western Pennsylvania he entered upon the practice of his profession about the year 1829. Was married to the daughter of William Welsh, esq. of Washington county, Pennsylvania. In the fall of 1837 with his wife and daughter, he emigrated to Knox county, Ohio, where in consequence of feeble health, he located on a farm in the vicinity of Mount Vernon. In 1840, 1841, he represented the county in the legislature. He afterwards removed to the town of Mount Vernon, devoting his energies to the practice of his profession until the Mexican War broke out, when he was appointed surgeon in the army, in which capacity he served with marked ability. At the close of the campaign, he returned to Ohio, and, with others, emigrated to Keokuk, Iowa, at the time the medical department of the State University was being organized. He was selected as one of its professors, and continued his association with the institution as professor and as president of the faculty up to the date of his death. As one of the editors of the Iowa Medical Journal, he labored unceasingly for the promotion of the profession. He was a member of the board of directors of the insane hospital of Ohio, and afterwards in our own state. Served several years as president of the board of health of the City of Keokuk. Politically, the Doctor was a great en-

thusiast, a faithful follower of the teaching of Jefferson, and an admirer of Jackson. In the presidential contest of 1860, he was one of six who voted for John C. Breckenridge, who was his beau ideal of a statesman.

When the tocsin of war resounded throughout the land, the voice of Dr. McGugin was heard in favor of conciliation and compromise. Many months after the inception of the Rebellion, his conviction underwent a radical change, and he veered to the opposite side, keeping step to the music of the Union. In 1862, he accepted the appointment of surgeon to the 3d Iowa Cavalry, and after the battle of Pea Ridge was transferred to the military hospitals in St. Louis, in consequence of failing health. At the urgent solicitation of a host of friends, he resigned his position, and returned to Keokuk to recover his lost energies. Having regained his health, he reluctantly consented to assume charge of the Leighton House Hospital, which he conducted with marked skill and ability until his system became thoroughly impregnated with mephitic poison from wounds and other sources. When his vitality was fast ebbing away, he consented, at the instance of his medical friends, to relinquish his charge and devote a few hours to the resuscitation of his failing powers. A condition of asthenia supervened however, before plans were perfected for a short travel, from which he never rallied. It was the pleasure of his biographer to see him often in his last hours, and render to him what comfort he could to smooth his way to the grave, for which he was more than grateful. Naturally of a delicate, nervous organization, it was a matter of surprise to his friends to observe his remarkable equanimity of temper; amid all his sufferings his mind remained clear to the last. He conversed freely about the future; he believed in the Bible, and calmly submitted to the Divine will. A few days before his death, he asked the writer to open the window, exclaiming: "That I may once more gaze upon the blue sky, and contemplate the beauties beyond."

On the 23rd of June, 1865, at 11:30 o'clock, he died. His place in the profession which he adorned, in the literary and social circle, cannot readily be supplied. His ability was universally acknowledged. His reputation by no means circumscribed. His usefulness and activity as a contributor to the literature of the profession will be disputed by none, indeed, he loved to discuss the intricate parts of medicine and with great skill in the adaptation of his inexhaustible vocabulary, would expound the most abstruse theories, and render them so clear that controversy was, in fact, ridiculous.

He was never better pleased than when expatiating upon the beautiful theory of the capillary circulation upon the blood. Whether in the presence of the august national society, or in the halls of the university, he labored purely for the advancement of science, and the overthrow of everything pertaining to irregular medicine. On the ethics and dignity of the profession he was truly eloquent, and be it said to his honor, that he practiced religiously what he preached. If he excelled, in any particular, his professional brethren, it was in that of a correct diagnosis of disease, securing to him a wide fame as consulting physician; this power was not intuitive, but due to the thorough manner with which he was accustomed to investigate disease. His scholastic attainments were of the finest order. His modes of thought full of originality. As a practitioner, conscientious and skilled. As a teacher, versatile, earnest and enthusiastic. As a man, sincere, and full of benevolence; sacrificing his own comfort in this desire to benefit his fellow men.

The last solemn services were conducted in the Methodist Church, of which, Mrs. McGugin was a member. His brethren laid his remains quietly beneath the sod, while the multitudes stood around to witness the last honors paid to a man whose memory will not rot in the tomb.

John W. Finley\*, M.D., was born in Lincoln county, N. C., June 15, 1807. He was the son of James and Mary Finley, who while he was yet a child removed to Kentucky, and subsequently to Pike county, Missouri. Here he grew up engaged in the ordinary labors of the farm; attending the common schools of the country during the winters, until he was about twenty-three years of age.

He then went to Jacksonville, Ill., to an institution under the charge of Dr. Edward Beecher, where he remained a little more than a year. Soon after leaving there he commenced the study of medicine with Dr. Wm. C. Hardin, of Louisianna, Missouri, and continued for two years. In 1834 he went to Cincinnati, Ohio, to attend medical lectures, and entered the office of Dr. S. D. Gross, then demonstrator of anatomy, being, as Dr. Gross said, the first office student he ever had. Here he remained for two years, graduating in the spring of 1836.

The same year he came to Dubuque, where he immediately entered upon the practice of his profession, which he continued untiringly and without interruption, for thirty-eight years (except an absence of two and a half years in the army). During the early years of his practice the country was new and sparsely settled; the resident physi-

cians were few and far between; many of the roads were mere trails or bridle-paths, and those designed for wheels were usually impassable during the spring and fall, permitting only traveling on horseback; consequently for many years he traveled almost entirely in this manner and during the prevalence of malarial fever in the fall, and pneumonia in the winter and spring, he was frequently almost continuously in the saddle; often called long distances to the vicinity of Colesburg on the northwest, to points in Delaware county on the west, into Jones and Jackson counties on the southwest, not infrequently traveling from sixty to seventy-five or eighty miles on a single trip; enduring fatigue and performing labor that few men could have borne up under.

In June, 1844, he was married to Miss Helen Coriell, a daughter of one of the early settlers of Dubuque. The winters of 1851 and 1852 he spent at Louisville, Kentucky, in attendance upon lectures, for the two-fold purpose of rest and improvement; renewing again his acquaintance with Prof. S. D. Gross, towards whom he ever felt a grateful friendship. At the close of the course he returned to Dubuque and resumed his practice which continued to increase. For some time previous to 1840 he was associated in business with Dr. Crane; from May, 1855, to March, 1856, with Dr. C. W. Belden; and from the fall of 1856 to the spring of 1861 with Dr. Tom O. Edwards. From 1857 to 1859 he was the senior member of the banking firm of Finley, Burton & Co., who about the same time established and operated a white lead factory. They withstood the financial pressure of those years longer than many others, but the decline and shrinkage of values, especially of real estate, at length compelled them to suspend. At that time, beside his liability as a member of the firm of Finley, Burton and Co., he had somewhat extended personal liabilities; these he promptly secured with his private property, and ultimately paid to the last dollar with interest.

After the breaking out of the Rebellion, Dr. Finley felt an earnest and increasing desire to enter the military service, and October 1, 1862, he was very appropriately appointed surgeon of the 37th Infantry (the Iowa Grey Beards), and served faithfully until it was mustered out at the close of the war, when he returned to Dubuque and resumed practice with Dr. Joseph Sprague, which partnership continued until nearly a year after the latter became disabled in May, 1873.

In August, 1856, he was thrown from his buggy, his head striking the curbstone, receiving severe injuries. From the immediate effects of these injuries he suffered several months, but,

\*The biography of Dr. Finley would have appeared in the first number, but for an error in the date of this manuscript.

with that restless energy peculiar to him, he resumed attendance upon his old patrons in spite of pain and suffering. Soon after, embarking in the extensive business operations heretofore referred to. These with the attendant misfortunes, the anxiety arising therefrom, and the labor of an extensive practice, undoubtedly contributed largely to develop the changes that finally terminated his life. He continued to practice as his strength and sufferings would permit until the spring of 1874. In September of that year he visited Philadelphia to consult his old friend, Dr. Gross, but without receiving any permanent benefit. He suffered severely during the following winter, and in June, 1875, he visited California spending a short time in Utah, hoping by a change of scene and a milder climate to stay the progress of his malady.

He remained through the winter, spending part of the time at Los Angeles, returning to Dubuque in March, 1876, realizing but little or temporary benefit from his journey. His disease progressed steadily, causing a gradual loss of control of his will, an impairment of memory, especially of recent events; at times a loss of ability to walk. During July he failed rapidly, and sank August 3, 1877.

In personal appearance Dr. Finley was six feet two inches in height, a spare, stooping figure, yet a man of marked appearance and of equally marked character. Without the aid of those personal attractions which are supposed to be so valuable to the successful popular physician, and none of the elements that enabled him to assume that mild, yielding character that can conform to every influence, and be all things to all men; none that go to make up the plausible fawning sycophant. On the contrary, he was reserved, retiring, and at times so abrupt that strangers thought him curt, unresponsive, and even irritable; he appeared ever courteous and kind to those friends and acquaintances who knew him well.

With his patients he possessed a personal magnetism which combining with his kindly feeling, his earnest sympathy and untiring diligence, gave a hold upon them that few can equal, and yet fewer can excel. In his relations to members of the profession he was ever open, cordial, and honorable. Always careful and scrupulous to avoid interfering with the rights or patients of other practitioners; keenly sensitive to his own rights in this respect, he would be a party to no contest but would promptly abandon any patient where there

was an apparent probability that he was not entirely acceptable to the patient and immediate friends. In consultation he was courteous and judicious; cautious and unobtrusive in the expression of his opinion; when sought, it was given with an unassuming but cordial freedom, that while it gave additional weight to his endorsement, yet carefully avoided reflecting upon any who might disagree with him.

To the young practitioner he was unassuming and friendly, he watched him closely, and if the verdict was favorable his endorsement was ready, cordial, and free; if not, he quietly abstained from any expression of opinion; censoriousness being entirely foreign to his character. He had long been a member of the Dubuque County Medical Society, but took no active part in its proceedings. He joined the Iowa State Medical Society at its meeting in Dubuque in 1860, but took no steps to retain or renew his membership.

As a business man he was cautious and careful; as a citizen he was ever ready to encourage and assist whatever he thought was for the public good, casting his influence on the side of morality and religion.

Possessing strong convictions and forming decided opinions, yet wanting those strong impulses that would prompt him to present them forcibly, or urge them upon others. He was deficient in the essential elements of a leader, and by some was unjustly regarded as lacking public spirit.

Ever regular in his attendance upon and support of the Presbyterian Church, and a believer in its doctrines, he did not make a public profession of religion until the last year of his life. Generous and kind in his professional intercourse with the deserving poor; systematic and conscientious in his benevolence, yet so averse to ostentation and display in giving that he took special pains to conceal his charities, practically illustrating that teaching of scripture, not to allow his left hand to know what his right hand did. As a whole his life and character were above the average in usefulness and success. With only such advantages and opportunities as are within the reach of the humblest in the land, he sought the frontier, and by a career of persevering labor and self-denial secured a position and exerted an influence that are alike commendable and honorable, leaving the memory of a life fragrant with kind acts and good deeds that will long survive him.

## THE RELATION OF THE DOCTOR TO THE IOWA WORKMEN'S COMPEN- SATION SERVICE

OLIVER J. FAY, M.D., Des Moines

The "socialization" and the "nationalization" of medicine have become well-worn phrases during the past decade. In England, moreover, social medicine has become more or less of a reality and, in the eyes of many, has threatened to become something of a financial tragedy for a considerable part of the medical profession. In antebellum days here in our own country, no such general movement in the direction of nationalized medicine had become apparent, for the Public Health Service had largely confined its work to a field in which we as a profession have taken perhaps too little interest. Only in the gradual adoption of state compensation laws, and in the attempted enforcement of a fee schedule by certain corporations were apparent the early mutterings of a rising storm or, depending upon our individual feeling towards the movement, the first flush of a coming dawn. The exigencies of war have demanded to a certain degree the nationalization of medicine in as much as something like half of the active members of the profession are serving large groups of citizens in camps or in communities, or assisting the government in some special capacity at a fixed salary, as in the Medical Corps of the Army or the Public Health Service, or serving upon local draft boards or district advisory boards with little or no compensation. Many people, both within and without the profession, believe that this nationalized service will be continued to some degree after the war, that this war has been a forcing house which has brought us to the brink of social medicine. To me at least it seems that it is too early for any speculation upon the ultimate effect of the war upon nationalization to be profitable—at most it can be diverting. I shall, therefore, confine my remarks tonight to a much narrower and more concrete subject, and speak only of the relationship of our profession to the Iowa Workmen's Compensation Service. The profession as a whole has too often been inimical to compensation laws, has been more or less openly antagonistic to their operation. While Iowa's present compensation law undoubtedly has some weak points, is in some respects unjust to the profession, at least some of the differences and criticisms which have arisen have been due to a lack of cooperation and understanding on the part of the profession. A really satisfactory and effective compensation law will undoubtedly come

only as the result of slow growth, of gradual adaptation and revision when trial has proven this or that provision inadequate or unsatisfactory. In Iowa our compensation law is still in its infancy, but to allay the growing pains of this early period, we have been particularly fortunate in having the law administered by a broad-minded and efficient industrial commissioner possessed of a keen sense of justice and a gratifying appreciation of the medical profession—an appreciation which is by no means common to those of his calling.

In the first place, it cannot be too forcibly stated that there is nothing in the compensation law nor in the rulings of the industrial commissioner to establish or to force the signing of a fee schedule. The doctor who signs such a schedule at the behest of any corporation or employer puts his head into the noose of his own free will, and in so doing makes himself a party to the establishment of a five-and-ten-cent-store brand of professional services, which he himself is then the first to inveigh against. The Iowa Compensation Law establishes, and the Iowa Industrial Commissioner recognizes only one standard for fee regulation—a *reasonable fee*. It may be argued that there is room for a wide difference of opinion in regard to what constitutes a reasonable fee, but I believe that the physician who desires to be fair will seldom if ever have any difficulty in answering that question for himself and, having answered it fairly, in having his bills approved. If in your community the average man expects to pay a fee of one dollar for having a minor injury dressed, then the question of the fair fee to demand of corporation or employer for performing a like service for an employe is answered automatically. The doctor should receive without question from any company a fee equal to that which the average man of moderate means would be expected to pay. There is a distinct advantage for the doctor in looking to a corporation for his pay in as much as he is sure to receive his fee and within a reasonable time—two blessings which the doctor unfortunately often fails to enjoy when he is dependent upon the gratitude of his patients.

A basis for the adjustment of fees in more serious cases is as readily found. Many a nabob has undoubtedly paid some thousands for a herniotomy, yet none of us would argue that this would constitute a reasonable fee for the average man. Few of us would expect to receive from a laboring man the hundred or two which the Iowa farmer perchance pays for the privilege of discarding his truss. Paragraph b of Section

2477-m9 provides that the liability of the employer for medical, surgical and hospital service shall not exceed \$100. In the case of a herniotomy, after the deduction of reasonable hospital bills, the surgeon may receive a fee of \$50 or even \$65 for operation and post-operative care. Granted that in many cases, we perform a herniotomy for the workman himself for such a fee, or even without compensation, the standard of the fee which might reasonably be demanded from the average man of moderate means still holds true for the corporation, and it is evident that after the deduction of necessary other expenses from the \$100 provided by law, the remaining fee is insufficient compensation for the surgeon.

In many other cases, moreover, this limitation of the liability of the employer for medical, surgical, and hospital care to so small a sum works a far greater injustice to the attending physician. Take, for instance, a compound fracture of the femur: the hospital is the only safe, practical and satisfactory place to care for such an injury, and the requisite number of weeks spent in a hospital would in all probability leave nothing at all for the doctor to recompense him for his numberless hours of time and for his grave responsibility. If the employer or insurer should refuse to assume further responsibility, the doctor faces three unpleasant alternatives:

1. He may give unlimited service for sweet charity's sake. I believe that with very few exceptions the profession would accept this course.

2. He may look to the injured workman whose 50 per cent. compensation seldom suffices to do more than keep him and his family in the bare necessities of life.

3. He may refuse to continue to care for the case when he discovers the nature of the injury, and face the storm which is sure to blow his way. In the latter case, he has simply passed his problem on to some other member of the profession.

In spite of the very evident weakness of the Iowa law, in this regard, I believe that our doctors have seldom been called upon to face so acute an issue. This may in some measure be due to a dawning conscience among our corporations—consciousness would, perhaps, be a better word; *consciousness that in the face of a fixed compensation for permanent disability, discretion is the better part of valor, and a one-time payment for competent medical care better than a monthly payment for disability.* The industrial commissioner is thoroughly convinced of the immediate and ultimate economy of efficient medical care, and to his educational work in this field many of us undoubtedly owe the receipt of a reasonable fee from an employer even though the neces-

sary hospital fees had legally relieved the employer of any responsibility for medical services.

Aside from the occasional differences of opinion as to what constitutes a reasonable fee for a given service, a physician is occasionally charged with unduly prolonging the period of treatment, or with making too frequent calls upon, or doing too many dressings for an injured workman, thus increasing his bill. It is apparently true that an injured workman occasionally receives more medical attention than the severity of his injury would seem to warrant, and, since the medical profession is recruited from the ranks of ordinary mortals—let us say from the same clay as corporation officials—it is probable that occasionally this over-service is given with the intent of getting ahead of the employer. To assume that this is usually or even often the case is rank injustice. One must not lose sight of the fact that the average workman is possessed of a very human desire to get something, to get all that he can, for nothing, and that accordingly he is apt to demand from the doctor who is to be paid by his employer, service which he would not think of asking if he himself were to foot the bill. Sometimes, too, greater cupidity enters into his demands for continued and continuous medical service—he is far-sightedly trying to increase the apparent gravity of his injury against the day when compensation is to be decided upon. In trying to avoid even the appearance of greed, to play fair with the employer and yet retain the goodwill of the patient, it is small wonder that the doctor often incurs the ire of both employer and employee. The safe path for the physician lies in giving each injury the care which he thinks essential, judged by the physical evidence of the injury itself and his own experience with similar, non-industrial injuries.

Brislawn, commissioner of the industrial insurance department of the State of Washington, says that for the sake of uniformity in handling cases, his department gives preference to the service of those examiners who make good special reports. A majority of us doctors are on a continual war footing with the pen, and records of any sort are a bane to the average busy physician. Yet it seems quite probable that greater care in regard to making and filing our reports would do away with a considerable number of the disputes in regard to medical fees. If a doctor reports a given injury as a "cut finger" without further comment, who but himself is to blame if his fee of \$25 or \$50 is protested? The severing of the tendons of a finger requiring their suture under an anesthetic, the care of a bad infection, might

(Continued on Page 124)



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COUNTRY CLUB LINKS

well warrant such a fee. If a doctor sends in a bill for \$5 or \$10 for a single call, and no further explanation is made, is it strange that the insurance adjuster should make protest? Such a fee may be a very reasonable one—say when the doctor has been forced to drive several miles across country, or when what he tersely terms a call has included some minor operation. If the bill were to be sent to the patient himself, he might be reasonably expected to remember the circumstances attending this call and to accept the item without question—though sometimes expected in vain—but can we reasonably expect the insurance adjuster or the industrial commissioner to have this understanding for a case of which he has no personal knowledge. Let our reports be brief—a freckle which the patient may chance to have on the left side of his nose does not ordinarily call for comment—but let them include essential facts.

The limitation of the liability of the employer for medical, surgical and hospital service is a weak link in the compensation service from whatever angle considered, whether the limitation be to a given sum, as in Iowa, or to a period of thirty, sixty or ninety days as in some other states. A large majority of injuries are minor injuries in which the liability of the employer is limited by the character of the injury to less than the minimum established by law. Any case which is not so limited is of so serious a nature that not only the interests of the employe nor even those of the employer but also those of the commonwealth are jeopardized by any such limitation. One of the basic lessons of the present war has been that no system of pensions, however generous, is adequate, no medical care which stops short of restoration to the greatest possible usefulness is satisfactory where our injured soldiers are concerned, and what is true of our national army is equally true of our great industrial army, whose casualty list is not limited by the duration of the war, but must continue so long as the wheels of industry turn. This may be social medicine, but certainly it is the only measure acceptable to our vaunted American efficiency. The vital issue in industrial medicine cannot remain the determination of the percentage of compensation to be given for a given injury to the hand; it must stop short of nothing less than the restoration of that hand to the greatest degree of usefulness possible, and compensation when given will then be based upon the functional and not upon the anatomical loss. Society, which reaps a harvest of some thousand dollars from the industrial life of each laboring man, cannot long countenance the wasteful system of annually al-

lowing a considerable number of her laborers to be made mendicants by the operation of faulty compensation laws.

From the lessons which we are now learning from this great war, it is estimated that six months is the average time required for industrial reconstruction and rehabilitation of the man with a major injury. It may be argued that so long a stay under the necessarily expensive roof of a reconstruction hospital would be too heavy an expense for our insurance companies, and, ultimately, the employer. We are not primarily concerned with the return of a given dividend to any insurance company, and since it is the state which is most vitally interested in rehabilitation of the injured workingman, it is the state which must take over the problem when the employer fails of its solution. There is at this time a bill before Congress providing for the rehabilitation of the injured in the industrial army of this country, the expense of such reconstruction work to be shared equally by the Federal and the state government. This work would call for men with special training and qualifications, and an army of medical men are now receiving this special training in the great school of war. When their task of returning the maimed soldier to a life of useful activity is completed, the great industrial army may well claim their services.

Under our present compensation law, no provision has been made for a medical advisor for the Iowa Workmen's Compensation Service though both Mr. Funk and his predecessor have felt the need of frequent medical council in solving the many technical questions which arise. More recently the state executive council has given official sanction to the appointment of a medical advisor for the workmen's compensation service, an officer whose duties are advisory only and who is without either judicial or executive power. In the event that our compensation service should take on the broad task of industrial reconstruction, the medical work of the service would be greatly increased, not only in quantity but to an even greater extent in its specialized quality. To the medical board of the compensation service would fall the task of seeing that a given injury is cared for by a specialist if necessary, that the workman is sent to a reconstruction hospital if advisable, and that when he finally returns to work, any remaining handicap is duly compensated.

Since Des Moines is so fortunate as to have two reconstruction hospitals within its portals, Iowa would seem to be particularly well equipped for the work of industrial rehabilitation. The day when these hospitals are no longer a military

need must inevitably come, and if in the interim we have found a permanent use for their wonderful machinery, the state, the world of industry, and the world of medicine will profit by their work.

## SHALL WE CONTROL COMMUNICABLE DISEASES?

D. C. STEELSMITH, M.D., Iowa City

Health Officer to the State University of Iowa, Iowa City

Yes, absolutely, yes. If the word "control" were stricken from the subject and the word "prevent" inserted in its place the answer would be, no.

The control of communicable diseases means the keeping of same under or within the endemic index. The prerequisites for this are the following:

1. Full-time health officers.
2. Prompt reporting of diseases. (a) By physicians; (b) By parents; (c) By others.
3. Prompt investigation by health department.
4. Prompt isolation of affected persons.
5. Prompt immunization and observation of all contacts (where possible).
6. Other preventive measures promptly adopted.
7. Complete records.

1. *Full-time Health Officer*—He should be specially trained in public health work. He should not be allowed to enter any other gainful occupation.

The duties of a full-time health officer are many and varied. Equipped with the proper laboratory he is extremely useful in early diagnosis of many diseases, his records (vital statistics) are very useful in obtaining much information. In rural sanitation, as well as urban, his services are necessary. The question of housing, lighting and ventilation of public buildings may be referred to him. Among other duties may be mentioned the control of communicable diseases. It is very plain that he becomes the local vital statistician. It is to his office that all reports should be sent. These reports should consist of births, deaths and all cases of communicable disease.

The report of births might be made monthly, but the reports of deaths and communicable diseases should be made within twenty-four hours of discovery.

2. *Prompt Reporting of Diseases*—A. By Physicians. The proper blanks should be placed in the hands of all practitioners, and, with the adoption of a morbidity law and the necessary rules by the state board of health, this could be accomplished with little or no inconvenience.

The assistance given the medical fraternity through the laboratory, as well as assistance in clinical diagnosis, would soon establish the fullest cooperation in the matter of reporting.

B. By Parents—It should be mandatory for the parent or guardian of any sick person to report any and all communicable diseases, when a physician is not in attendance.

Parents are prone to evade the reporting of disease within their family from fear of the necessary isolation and other interference with their mode of living and pleasure. However, in the present organization of society they owe a certain amount of their time and pleasure to the betterment and welfare of their neighbors and friends.

When the public is informed that it is not at all necessary to "quarantine for forty days" the whole family, but that by careful isolation of the afflicted member, we can control the communicable diseases, our reports will be forthcoming effectively and early.

C. By Others—In order to obtain reports from neighbors, friends, nurses, etc., the health department must use a great deal of tact and treat all reports with the utmost confidence. Without the reporting of all cases of disease it is impossible to establish an endemic index for any community.

3. *Prompt Investigation by Local Health Department*—The health department should stand ready at all times to not only assist the medical men in laboratory diagnosis, but also assist, when called upon, in early clinical diagnosis. This gives the health department the privilege of having early access to the patient and surroundings which mean so much in the control of communicable disease, since we now know that most of these diseases are most communicable in the early, febrile stage.

4. *Prompt Isolation of Affected Person*—The early isolation of the affected person and close supervision of contacts will prevent the spread of disease in the immediate family, thereby protecting the community. Where isolation is religiously carried out there is no need of the absolute quarantine of the family, especially those actively engaged at work outside the home.

5. *Prompt Immunization of all Contacts (Where Possible)*—Great stress should be made in the matter of immunization of all contacts when possible. This especially applies to typhoid, diphtheria, pneumonia and smallpox. If possible this immunization should be made compulsory either by local health board or the state board of health, by rule. I recall two cases of typhoid the

past summer, one of which proved fatal, that the attending physician and myself plead for the use of typhoid vaccine, to no avail.

6. *Other Preventive Measures*—This would include the epidemiology of each focus of disease, proper screening of homes in typhoid and malaria, general cleanliness, ventilation, proper disposal of excreta and other hygienic prophylaxis so commonly neglected by the busy practitioner.

7. *Complete Records*—Local health statistics, including record of births and deaths, is very necessary for the study of occurrence and spread of communicable diseases. This data should be in the hands of the local health department for purely local purposes and later should be sent to the state department, for their further compilation and study.

This method of reporting should be adopted only in case of employment of full-time health officer, otherwise all reports should be made direct to the local board and then immediately to the state board of health.

Something should be said regarding the value of records of births, deaths and communicable diseases. The value of birth records:

1. The ascertaining of natural increase in population.
2. Legal records.
  - (a) Date of birth, parentage.
  - (b) To establish age regarding school.
  - (c) For permission to work, etc.
  - (d) Connection with military duty, jury duty, voting, citizenship.
  - (e) Inheritance of property.
  - (f) To health department for protection of health of infants, etc.

#### *Value of Records of Deaths—*

1. Legal.
2. Economic.
3. Social.

Time, place and cause of death should be made a record for both sentimental and legal reasons.

*Value of Morbidity Records*—"No health department, state or local, can effectively control disease without the knowledge of when, where and under what condition disease is occurring."

1. Occurrence.
2. Proper preventive measures may be applied.
3. Conditions causing occupational disease may be remedied.
4. Reports show needed sanitary measures.
5. History of diseases.
6. Compilation of endemic index.

In order to detect incipient epidemics, it is necessary for the health department to have some indicator of the variations in the prevalence of the communicable diseases. This indicator may be furnished by the endemic index.

The endemic index may be defined as a numerical standard for judging the relative prevalence of any disease in any community. It is based upon the amount of a given disease that has been endemic in a community over a period of years. By separating the endemic from the epidemic disease, it is possible to establish the average endemicity of any disease and the slightest epidemic variation may be noticed. This index may be used as daily, weekly or monthly. I believe the monthly index more practical. This average, or index, gives the health department an arbitrary figure to be used as an indicator for epidemiological investigation.

There may be some question as to how the medical fraternity will accept the above program. We find that where the plan has been adopted the medical men are the most ardent supporters. They maintain their work is more pleasant, because of the better treatment they are able to give their patients. Their income is increased, and on the whole this plan places their work upon a higher plane.

#### **ANNUAL MEETING IOWA CLINICAL MEDICAL SOCIETY, DES MOINES, MAY 6**

The Iowa Clinical Medical Society will hold its annual meeting, in Des Moines, May 6, the day before the meeting of the Iowa State Medical Society.

Clinics will be held during the forenoon, at the Iowa Lutheran Hospital by Drs. Fred Moore, J. F. Auner, Frank A. Ely, Granville N. Ryan and Julius Weingart. Luncheon at the Des Moines Club, to be followed by round table talk, and in the evening at 8:00 o'clock an open meeting will be held in the auditorium of the Chamberlain Hotel, to which all members of the State Society are invited.

Addresses will be made by Major John Shuman, of Sioux City, and, Professor George Dock, of St. Louis. This will be followed by a smoker. Major Guthrie McConnell, secretary, Waterloo, Iowa; C. P. Howard, president, Iowa City, Iowa.

At the annual meeting of the Medical Society of the State of New York, held at Albany, N. Y., the House of Delegates recorded itself, by unanimous vote, as opposed to health insurance.

The report was received and referred back to the committee for further study.

The committee on economics is at work on social insurance problems and will be glad to cooperate with medical societies or committee of medical societies interested in the subject.

# The Journal of the Iowa State Medical Society

D. S. FAIRCHILD, Editor.....Clinton, Iowa

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## HEALTH INSURANCE

Quite divergent opinions exist in relation to the benefits or the reverse, of health, or civic insurance. We have read carefully many papers written and published on the subject in the medical journals.

There is one class of writers who attack health insurance with the same arguments that protectionists attacked the tariff for revenue propaganda of only a few years ago; that it was un-American; that it tended to pauperize the people and particularly the medical profession; that compulsory health insurance might work in Europe where working men were pauperized by low wages, etc. It is not difficult to see the point of view in many of the papers published. A considerable number of employers of labor believe that health insurance is unnecessary because American wages are high enough to enable the workman to carry his own insurance, or to make his own arrangement in case of sickness, or accident not due to negligence on the part of the employer, that compulsory insurance is an unfair burden on industry and its advocacy is one of the vagaries of agitators who are looking for some reform propaganda. It is insisted that if health insurance works well in Europe it is because of the pauperized condition of labor in Germany, France, England and other countries. That the highly paid labor of America should learn to take care of its own sickness account and not become demoralized by free sick benefits from contributions of em-

ployers. It is the same arguments of days not long gone by when industrial competition without protection would pauperize American labor.

There is another class of medical writers who refuse to recognize the existence of poverty and hardship among American workmen direct, except as the result of indolence and vicious habits. These men seem to have in mind only the highly skilled and highly paid labor and fail to recognize the condition of the great class of common labor whose places have often been taken by foreign cheap labor.

Others, recognizing the above facts, believe that relief should come through increased wages. They believe in insurance through private companies or fraternal lodges and are much distressed at the cost of compulsory health insurance to the state. This is the view held by private companies carrying industrial insurance, likewise accident insurance companies when state administration is under consideration. It appears that if only one side of the question is considered most convincing arguments can be presented against state compulsory insurance. It has been shown that from 40 to 50 per cent. of sickness does not receive medical treatment largely on account of the people most liable to sickness not being able to pay the expense. It is said that a fund accumulated for the purpose, could supply the untreated poor with proper medical care without being subjects of charity.

In relation to the pauperizing influence on the working classes it is shown that Germany with a much lower wage level than the United States has less destitution and want, said to be due to its social insurance system. Sickness, not low wages is the most important factor in causing poverty. Wages were never higher in America than they are today; yet poverty is more extreme than ever. This statement is based on the findings of the Massachusetts Special Commission to Investigate Health Insurance.

In relation to expense; in Iowa the report of Workmen's Compensation Commission show that 65 per cent. of the money paid in goes to expense of operation. In other words it requires 65 cents to convey \$1.00 into the pockets of the injured workman. In lodge insurance 60 per cent. is absorbed in expenses. In contrast to the expense of private and lodge insurance, Dr. Emery R. Hayhurst says in a recent paper; "In Ohio we have, we believe, one of the best compulsory state insurance businesses that exist and has just handled \$5,000,000 worth of premiums at an expense of 5 per cent."

The Goodrich Rubber Company in Ohio, one year ago placed its 18,000 employees under health

insurance, the firm itself paying the whole bill and allowing cash benefits of two-thirds the wage for sickness, and state, after one year, that "the service is given from the standpoint of good business."

In a paper read before the Wisconsin State Medical Society, Dr. Charles H. Lemon, chief surgeon of the Milwaukee Electric Railway and Light Company with 4,000 employes in Milwaukee gives the experience of this company with an insurance plan limited to its own employes, and although some change of details were necessary in the five years, the operation of the insurance was altogether successful. In a paper at the same session Dr. Gray of Milwaukee said that, "Considerable more than 50 per cent. of the problems of the Associated Charities of Milwaukee are partially or entirely medical problems," and from this and other like premises argues in favor of health insurance.

Dr. Frank Billings of Chicago says, "I am unequivocally in favor of compulsory insurance and the protection of maternity, that I think, must be the attitude of any one who studies the question of illness in its relation to economic condition."

On the other hand, E. J. Ochsner in a paper recently read before a Chicago medical society condemned compulsory health insurance, using the usual arguments of the idea being un-American and bad for the profession.

The arguments against compulsory insurance, seem to be very similar in nature and to have been furnished by Dr. Hoffman of the Prudential.

It is admitted that health insurance laws will be passed. If this is true the medical profession instead of condemning such legislation should study the plan with the utmost care and be prepared to direct legislation in such channels as will best serve the public and the profession. We feel quite sure that the arguments thus far produced by its opponents will fall far short of convincing the advocates of compulsory insurance laws. We are more and more convinced that economic conditions will not differ materially on either side of the Atlantic and if it is proven that a given plan works to the advantage of the people on one side of the Atlantic it is likely to be adopted on the other side.

#### STATE HOUSING LAW

Bills have been introduced in both houses of the present Iowa legislature, looking to better housing conditions.

We have many times discussed measures proposed to improve the conditions of living of the

working classes in our state. We, in Iowa, have for years congratulated ourselves on the success of the let alone policy in dealing with the home conditions of our working people without knowing much about them. Many people believe that conditions of living are mostly dependent on the question of wages when it has been shown as a matter of fact that this assumption is not true. The Massachusetts Commission has shown that, in that state wages have never been higher and that poverty has never been greater. Highly skilled labor who receives high wages need not be considered here as these people have a pride in a well ordered home, will have all the comforts and some of the luxuries, but this is not altogether true, for many highly paid workmen work irregularly and do not provide for the home in an ideal way. So that the line cannot be drawn so much on the amount of wages as on the quality of the workman. We have had a good deal to do with workmen of all classes and have seen them in their homes especially when some misfortune have overtaken them, and have had to consider them, not only as to the immediate means of comfort, health conditions and sanitation, but also as to efficiency as workmen as measured by physical ability. We have found that young men under thirty, about 20 per cent. were physically deficient when taken from certain districts; from the same districts men over thirty gave about 30 per cent. rejections and above forty years of age about 50 per cent. were physically defective.

In all parts of the city there is of course an increasing per cent. of physical deficiency with age, but in the tenement districts the per cent. of physical deficiency is altogether too large. This is most noticeable among our native Americans and the Irish than among the foreign laborers from the south of Europe. This may be accounted for by the fact that only few foreigners have been brought to us who were not able to perform heavy labor. Up to the present time, but little thought has been given by employers to the way in which their employes live. But the condition of the labor market has become so acute and the question of efficiency has become so important that the home conditions have begun to attract attention.

The physical defects we have noticed, appear to be due to three causes; first, poor sanitary conditions, filth, no adequate house ventilation, no plumbing, cold and damp rooms. Second: insufficient or badly prepared food and insufficient clothing in the cold seasons. Third, untreated constitutional diseases.

In these homes a hopeless condition of irritation exists. The owners of these poor houses are unwilling or unable to make improvements.

There is nothing to remind one of home life, there are many children, who are welcome more on the street than in the house, the food is coarse and often badly prepared, there is no order, no cheerfulness, one day is like another, there is no incentive for better things. In the saloon days the man and the grown up boys found refuge in places which now happily do not exist in our state. To see these prematurely old and dragged out people is indeed pitiable.

In the winter time the houses are cold and damp. The clothing is insufficient, particularly the bedding, in many instances only old blankets, and neither the clothing or bedding are laundered except at long intervals and the people say, "What is the use of trying to live better in such houses." Then there are the untreated diseases which the victims are indifferent about or too poor to have properly treated. The woman of the house regrets the condition and would gladly welcome something better, but her big family, her environment, discourages even an attempt to do something to improve her home.

It is to be sincerely hoped that the legislature can do something to improve the housing of those who cannot themselves improve their ways of living. There are of course those who from mental defect or indifference, care for nothing but an animal existence, but the number of this class is small and should not be considered in the general plan of betterment. The housing of the poor working people in the United States is far from being as good as in the civilized nations of Europe, particularly in Germany, where in the year before the war, the municipalities took great pride and pleasure in showing how well they cared for the welfare of their working people.

#### LOCATION OF CHIEF SURGEONS AT THE CLOSE OF WAR

From the New York Medical Journal we obtain the following information concerning the location of chief surgeons.

When the armistice was signed the United States had in France the first and second army, the first, second, third, fourth, fifth and sixth army corps and forty-two complete divisions.

To each army corps and to each division was assigned a surgeon general, following the classification of the British Army. The following is a complete list of these surgeon generals:

First army, surgeon general, Colonel Alexander N. Stark; second army, surgeon general, Colonel C. R. Reynolds; third army corps, surgeon general, Colonel James L. Bevans; fourth army corps, surgeon general, Colonel George H. Gosman; fifth army corps, surgeon general, Colonel William R. Eastman,

and sixth army corps, surgeon general, Colonel Bailey K. Ashford.

Following is a list of the names of the division surgeons of the respective divisions:

First division, Lieut. Col. Herbert B. Shaw; second, Col. John W. Hanner; third, Lieut. Col. William H. Eastman; fourth, Lieut. Col. Robert L. Carswell; fifth, Lieut. Col. Robert H. Pierson; sixth, Lieut. Col. Paul L. Freeman; seventh, Lieut. Col. Allie W. Williams; eighth, Lieut. Col. Lloyd L. Smith; twenty-sixth, Lieut. Col. Ralph C. Porter; twenty-seventh, Lieut. Col. Edward R. Malony; twenty-eighth, Lieut. Col. William J. Brookston; twenty-ninth, Lieut. Col. John B. Huggins; thirtieth, Lieut. Col. Arthur W. Whaley; thirty-first, Lieut. Col. Charles W. Decker; thirty-second, Lieut. Col. Gilbert E. Seaman; thirty-third, Col. L. M. Hathaway; thirty-fourth, Col. Jacob M. Coffin; thirty-fifth, Lieut. Col. W. T. Davidson; thirty-sixth, Lieut. Col. A. T. Metcalf; thirty-seventh, Lieut. Col. Joseph A. Hall; thirty-eighth, Lieut. Col. Robert M. Blanchard; thirty-ninth, Lieut. Col. Larus D. Carter; fortieth, Lieut. Col. Alexander Murray; forty-first, Lieut. Col. Orvill G. Brown; forty-second, Col. D. S. Fairchild; seventy-sixth, Lieut. Col. William A. Powell; seventy-seventh, Lieut. Col. Chas. R. Reynolds; seventy-eighth, Col. George M. Ekwurzel; seventy-ninth, Lieut. Col. P. W. Huntington; eightieth, Col. Thomas L. Rhodes; eighty-first, Col. Kent Nelson; eighty-second, Col. Conrad E. Koerper; eighty-third, Col. Wallace De Witt; eighty-fourth, Col. John H. Allen; eighty-fifth, Lieut. Col. Cosam J. Bartletts; eighty-sixth, Lieut. Col. Jos. W. Phalen; eighty-seventh, Col. Robert M. Thornbury; eighty-eighth, Col. Ray R. Shook; eighty-ninth, Lieut. Col. John L. Shepherd; ninetieth, Lieut. Col. Paul S. Halloran; ninety-first, Col. Peter C. Field; ninety-second, Lieut. Col. Perry L. Boyer.

#### THE DUTIES OF THE DIVISION SURGEON

The care of the wounded from the trench or field to the front line hospital falls upon the division surgeon and his staff, medical officers and enlisted men. Beside the chief and his assistants on the administrative staff, these constitute the personnel of field hospitals, ambulance companies; regimental and battalion surgeons for the regiments of infantry and artillery, stretcher bearers, ambulance drivers and hospital corps men.

It is needless to say that much depends on the experience, foresight and judgment of the division surgeon. The choosing of sites for aid-posts and dressing stations, of routes of evacuation for the stretcher bearers and ambulances, instruction of officers and enlisted men, of ambulance companies and field hospital personnel in their duties; the perfecting of plans for rapid evacuating of wounded to properly equipped operating hospitals; the establishment of special hospitals for the care of gas casualties, are all of prime importance.

The fate of the wounded man depends first on the care and skill with which these duties are performed, and to perform his duty efficiently, the division surgeon must have the confidence and cooperation of his commanding line officer, and warning of impending attacks in order to make adequate preparation. There must be an ample supply of surgical dressings and of splints at all aid-posts and dressing stations, and provision for applying heat and warm dry blankets in the treatment of shock. Splints must be furnished to stretcher bearers to apply to fracture cases where they fall. Each division in action should have an ample supply of the standard adopted splints, such as Thomas leg and thigh splints, Thomas arm splints and Cabot posterior wire leg splints, and all stretcher bearers and hospital corps men should be thoroughly instructed in their application.—Colonel Charles H. Peck, M.C., *Annals of Surgery*.

#### HEADQUARTERS FORTY-SECOND DIVISION AMERICAN EXPEDITIONARY FORCES

##### Office of the Surgeon

January 8, 1919.

From: Division surgeon.

To: Director of laboratories, American E. F.

Subject: Function of a Division Field Laboratory.

1. The report herewith submitted is self-explanatory; as to its extreme importance to the medical administration of a division and in the opinion of the division surgeon, who was its former division sanitary inspector, is of the belief that the laboratory is as essential to a division in the field as it is in any well regulated hospital. The prime features is its need so manifestly shown in expediting preventive measures in the control of disease in the field, as it is most valuable in general hospital work, where early information is obtained and required.

2. In appreciation of its use, this field laboratory has functioned every day since September, 1917, combat and otherwise and always on borrowed transportation. In order to give this unit a proper recognition to the services of the medical department and to facilitate its use, would recommend it be included in the tables of organization with prescribed authority and a practical equipment for a mobile unit with two Ford Camions. From the actual experiences after months of continuous combat services, together with conditions more or less stable, it is believed this laboratory should be attached to the division surgeon's office, under supervision of the sanitary inspector, where all matters pass direct and first hand—the hospital requirements are carried on by courier in a simple manner.

D. S. FAIRCHILD, Jr.,  
Colonel, Med. Corps, U. S. A.

#### HEADQUARTERS 42ND DIVISION

##### Office of the Field Laboratory

December 31, 1918.

From: C. O. Field Laboratory, 42nd Division.

To: Director of laboratories, A. E. F. (through division surgeon 42nd Division).

Subject: Historical Sketch and Report.

1. In reply to office letter No. 24, Division of Laboratories and Infectious Diseases, dated December 11, 1918, enclosed please find historical sketch and report of the field laboratory, 42nd Division.

#### REPORT OF THE FIELD LABORATORY, 42ND DIVISION

1. The Story of the Organization—The laboratory was organized at Camp Mills, Long Island, in September, 1917, functioning under the direction of the division surgeon. In October the Division sailed for France and arrived at its temporary destination, Vaucouleurs, Meuse, in November. The laboratory was stationed at the Division Camp Hospital handling the medical work of this hospital and making a survey of the water supplies.

In December the Division moved to the 7th Divisional Training Area. The laboratory was stationed at Division headquarters and functioned under the complete survey of the water supplies in all the villages, seventy in number, was completed. By means of courier service the medical work of the camp hospital was cared for.

In January the laboratory was moved to the Divisional Camp Hospital at Langres. The camp hospital, being more centrally located in the area, made an ideal place for the laboratory. In this location the work consisted of the medical laboratory examinations of the Division and the control of the sterilization of water in the Lyster bag.

The Division moved to the Luneville area in February. In this sector the laboratory was stationed in one of the field hospitals at Division headquarters in Luneville and operated under the direction of the Division surgeon. By means of couriers the entire medical laboratory work of the Division was cared for and in addition a survey of the water supplies was completed. Lyster bags were stationed from the front line trenches to the rear of the Divisional area and these were examined for the presence of free chlorine and for bacteria.

The Division moved to the Baccarat area in March and here occupied the first independent sector held by a division in the American Army. The laboratory and the hospitals were stationed at Division headquarters in Baccarat. The laboratory was not attached to any of the hospitals but operated independently under the direction of the Division surgeon. In this stationary warfare an ideal opportunity was given to prove the value of the Divisional laboratory. The work of the hospitals was placed on a routine basis and the assistance rendered corresponded with that found in civil practice. A medical camp hospital was organized to handle venereal cases and the laboratory work of this organization was placed on a routine basis. A survey of all the water supplies in the sector was completed. Water supplies were developed and built and a constant check was made on the Lyster bags to maintain sterilized drinking water for the men.

In June the Division moved to the Chalons area of the Champagne front and later in the month took position in the line near Suippe. A survey of the water supplies in both these sectors was made and every effort used to maintain sterilized drinking water for the men. The laboratory was stationed at Division headquarters, a very considerable distance from the hospitals. Courier service was established so the work of the hospitals was cared for satisfactorily.

Early in July, anticipating the great offensive of the Germans which began on the morning of July 15, the laboratory was placed in one of the field hospitals. When the offensive was initiated the laboratory, aside from its general usefulness about the hospital, cared for the following work: preparation of Dakin's solution, di-chloramin T, wound bacteriology, etc.

In the counter offensive of July 18 the Division was ordered to proceed to the sector southwest of Chateau Thierry. Upon arrival in this sector the alarm was given that the Germans had poisoned the water supplies. The laboratory was first stationed at Luzancy, then Chateau Thierry and later at Bcuvarde. The Divisional water supply officer proceeded ahead, with the troops collecting samples of water and making examinations for poisons. The laboratory equipment with one officer and three men was stationed at one of the field hospitals. Aside from the usual hospital work the additional work handled was preparation of Dakin's solution, di-chloramin T, wound bacteriology, etc.

The laboratory at this time was detached from the Division surgeon's office and attached to the hospital section of the sanitary train.

In the latter part of August the Division moved to the 3rd Divisional Training Area for reorganization and needed rest. Here the laboratory functioned with the camp hospital handling all the medical laboratory work and checking Lyster bags for free chlorine and bacteria.

In the early part of September the Division moved north toward the St. Mihiel sector. On the move the Division sanitary inspector and the Divisional water officer proceeded ahead investigating water supplies and bathing facilities. The laboratory proceeded with the sanitary train and functioned at all stops lasting one day or more.

In the drive of September 12 in the St. Mihiel sector the laboratory was advanced to within three kilometers of the original front line by nine o'clock in the morning and the Divisional water supply officer followed the infantry collecting water samples for poisons analysis. As the Division moved forward the laboratory advanced with the hospitals and reaching a semi-permanent location cared for medical laboratory work, water bacteriology and free chlorine tests in Lyster bags.

At this time the laboratory was detached from the hospital section of the sanitary train and attached to

the Division surgeon's office. Experience had proved that the laboratory directly in touch with the Division sanitary inspector and the Division surgeon's office was of more value than when attached to the hospitals.

In the early part of October the Division moved to the Verdun front and remained in reserve for ten days. About the middle of October the Division took up its position in the line and continued the Verdun-Argonne push. The laboratory functioned most of the time.

In the drive of November 1, the last of the war, the Division advanced at the rate of a kilometer an hour. The laboratory followed closely testing water supplies for poisons and checking sterilized water for free chlorine.

With the signing of the armistice the Division was withdrawn from the line for reorganization preparatory to entering Germany as troops of occupation. The Division advanced through northern France, Belgium, Luxemburg and reached its ultimate destination at Ahrweiler, Germany.

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It has been the experience of this laboratory that no hard and fast rules can be laid down for methods of procedure during rest, trench warfare or active combat. The situation presenting itself on the particular front occupied must govern the necessary action. One finds that methods which are successful in stationary trench warfare are not applicable when a division advances a kilometer an hour in combat.

It has been the experience of the laboratory that the work of the unit is just as valuable in active combat as in a rest area. Some of the most difficult examinations have been carried out while under shell fire.

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The laboratory in all its work has been directly in touch with the sanitary inspector. With contagion, water supplies and important hospital work requirements are to have the sanitary inspector advised with the least possible delay.

When a suspected case of diphtheria or meningitis develops the information is phoned in to the sanitary inspector at once by the regimental surgeon. All suspected cases are positive until proved otherwise by the laboratory. All contacts are isolated and necessary precautions taken. If the case is suspected diphtheria the man is cultured by a member of the laboratory. If the case is suspected meningitis a spinal puncture is made by a member of the hospital. Carriers found in organizations are sent to the hospital and held under treatment until cured or evacuated to the rear if the case is persistent.

The water supply is under constant supervision. One man in each company is responsible for the care of the Lyster bags and sterilization of the water. This man is directly responsible to the medical officer. A member of the laboratory checks the Lyster bags for free chlorine and collects samples of both

raw and sterilized water for bacteriological examination. If the drinking water used by an organization on three consecutive examinations shows insufficient sterilization disciplinary action is taken.

Experience in this Division has shown that the laboratory must be attached to the office of the Division surgeon if the best results are to be obtained. The work of the Division sanitary inspector and the laboratory are too closely associated to have them separated. Important information is always phoned in to the office of the Division surgeon and it is necessary to have the laboratory in close proximity if early action is needed.

Equipment—The laboratory equipment consists of the old type chests No. 1 and No. 2, incubator, microscope, microscopical supply case, chemical box, poison testing outfit, field desk and typewriter.

Transportation—The laboratory has always been handicapped by lack of sufficient transportation. At first no transportation was available and it was necessary in the inspection of water supplies to make use of ambulances, trucks or any available transportation. During moves it was necessary to make use of transportation in the sanitary train and the transportation assigned to the Division surgeon by G-1. Later an Indian motor cycle side car was assigned to the laboratory. At the close of the war a Ford truck was assigned for laboratory use. Without transportation it is almost a hopeless task to place the laboratory on an efficient basis.

Housing—In training areas the laboratory has been stationed in quarters such as houses or public buildings. In trench warfare suitable quarters have always been available in public buildings. In battle when the army moves forward with varying degrees of rapidity the laboratory has been established along roadsides, in fields, with no cover whatever, in tents, in dugouts and demolished buildings.

## 2. Method of collecting specimens—

(a) All water samples are collected by members of the laboratory.

(b) Diphtheria suspects and contacts are cultured by members of the laboratory.

(c) Spinal punctures for meningitis are made by members of the hospital. Contacts are cultured by members of the laboratory.

(d) Routine hospital specimens are brought to the laboratory by a courier.

## 3. Distribution of reports—

(a) Regimental surgeons are notified of diphtheria or meningitis by telephone and the written report sent later by courier.

(b) Hospital reports are returned with the courier bringing specimens.

(c) Reports of all water analyses are sent to regimental surgeon by courier.

## 4. Records—

All bacteriological reports on water are made in triplicate; one copy for the sanitary inspector, one

copy for the regimental surgeon, and one copy for the laboratory.

Reports of contagion are made in triplicate and distribution made in same way.

All hospital work not directly of interest to the sanitary inspector are reported in duplicate, one copy for the hospital and one copy for the laboratory.

A day book for all examinations and a log sheet for the water examinations has been in use in the laboratory.

## 5. Extent of laboratory service—

A division laboratory is one of two things: It is either a minor unit attached to the field hospitals to handle the minor work found in a field hospital or it is a divisional unit working on problems vital to the division as a whole. In this Division through the far-sighted and able direction of the Division surgeon the laboratory has been placed in a position where it has been a benefit to the entire Division. The laboratory has handled the usual pathological work found in the field hospitals. The bacteriological work consists of the contagion such as diphtheria and meningitis; tuberculosis, wound bacteriology, gonorrhea, chancre smears, vaccines, etc.

Epidemiology—In diphtheria, meningitis and diarrhea the laboratory has given valuable assistance to the sanitary inspector.

Sanitary Surveys—In each area occupied by this Division a sanitary survey of the water supplies has been undertaken. This work consisted of making out maps of each village in the sector, the location of all sources and the water mains, and the determination of the quality and the quantity of the water.

In the area now occupied by this Division a survey of the milk supply is under way.

Sterilization of Water—The bacteriological examination of almost all of the water supplies investigated by this laboratory has shown the presence of fecal pollution. In March a divisional order was issued requiring all drinking water to be sterilized with two tubes hypo per Lyster bag and that in each organization one man must be held responsible for the treatment of this water. This one man was responsible to the medical officer. It was then the duty of the Divisional water supply officer to check Lyster bags for the presence of free chlorine and to take samples for bacteriological examination.

## 6. Reporting to Division—

The laboratory reported to the Division in September, 1917. (See attached sheet for chronological data covering changes in station of unit.)

## 7. Personnel data—

(See attached sheet for personnel data.)

## 8. Improved Apparatus—

No improvement in apparatus.

## 9. Photographs—

No cameras allowed in advanced area.

## 10. Additional Equipment—

The following should be added to the laboratory equipment: Centrifuge, hot air sterilizer, autoclave and balance.

11. General Bacteriology—  
The experience of this laboratory has been such as to warrant the recommendation that in the equipment of a field laboratory be included aparatus and supplies sufficient to carry out general bacteriological work.

12. Summary of Laboratory Work—  
Attached is your report of the field laboratory.

The laboratory of the 42nd Division has functioned at all times and has endeavored to prove that such a unit attached to a mobile infantry division is a necessity. The success of this unit in all the fields of activity of this Division is due in a large measure to the loyal and devoted support of the Division surgeon and sanitary inspector and to the conscientious and self-sacrificing efforts of both officers and men in adapting themselves to the field conditions and making the most of the limited facilities at hand.

LUCIUS A. FRITZE,  
1st Lieut. San. Corps.

HEADQUARTERS 42ND DIVISION  
Office of the Field Laboratory

The following officers and men have been on duty with the field laboratory, 42nd Division.

Hubert C. Knapp, captain M. C., U. S. A. Assigned to duty September 15, 1917. Commanding officer September 15, 1917 to July 14, 1918. Transferred to base laboratory No. 1.

Lucius A. Fritze, 1st lieut. sanitary corps, U. S. A. Assigned to duty October 10, 1917. Commanding officer July 15, 1918 to date.

Frederick O. Adams, 1st lieut., sanitary corps, U. S. A. Assigned to duty September 22, 1917.

Men—Louis E. Bell, private, care M.D., U. S. A. Assigned to duty October 12, 1917. Frank J. Clarke, private M.D., U. S. A. Assigned to duty October 12, 1917. John L. Delawder, private, care M.D., U. S. A. Assigned to duty October 12, 1917. William J. Dore, private, M.D., U. S. A. Assigned to duty October 12, 1917.

SUMMARY OF LABORATORY WORK  
Field Laboratory, 42nd Division—Year 1917-1918

	Urine	Sputum	Feces	Blood	Water Bact.	Water Chem.	Spinal Fluid	Dip-theria	Pus	Wasser-mann	Miscel-laneous	Total
November .....1917	4	1	0	0	0	0	0	1	0	0	1	7
December .....1917	12	2	1	0	2	0	5	0	0	0	1	23
January .....1918	6	0	0	0	153	20	0	2	0	0	0	181
February .....1918	155	49	1	2	108	60	84	37	11	8	4	525
March .....1918	140	35	1	17	67	140	24	64	9	5	34	526
April .....1918	180	90	6	20	46	131	34	130	11	16	10	674
May .....1918	357	57	5	45	146	126	34	308	4	75	46	1203
June .....1918	233	46	1	16	57	118	13	172	42	33	4	785
July .....1918	4	1	1	1	0	154	0	19	15	0	2	197
August .....1918	52	8	76	8	72	134	0	105	0	15	46	516
September .....1918	40	0	4	3	30	414	0	0	0	1	0	492
October .....1918	14	0	12	0	52	361	0	6	0	2	0	447
Total.....	1197	289	108	112	753	1658	194	844	93	155	147	5576

RAINBOW DIVISION P. C's.

Following is list of Post Commands of Rainbow Division since its organization.

Stations	Arrived	Left
Camp Mills, Long Island.....	Sept. 4, 1917	Oct. 18, 1917
In France		
St. Nazaire.....	Nov. 1, 1917	Nov. 6, 1917
Vaucouleurs .....	Nov. 8, 1917	Dec. 12, 1917
LaFouche .....	Dec. 12, 1917	Dec. 26, 1917
Rolampont .....	Dec. 26, 1917	Feb. 17, 1918
Luneville (Lorraine sector).....	Feb. 17, 1918	Mar. 31, 1918
Baccarat (Lorraine sector).....	Mar. 31, 1918	June 21, 1918
Chatel-sur-Moselle .....	June 21, 1918	June 22, 1918
St. Germain-la-Ville.....	June 22, 1918	June 29, 1918
Vadenay Ferme.....	June 29, 1918	July 21, 1918
LaFerte-sous-Jouarre (Chateau Thierry).....	July 21, 1918	July 24, 1918
Trugny (Chateau Thierry sector).....	July 24, 1918	July 28, 1918
Beuvardes (Chateau Thierry sector).....	July 28, 1918	Aug. 12, 1918
LaFarte-sous-Jouarre (Chateau Thierry).....	Aug. 12, 1918	Aug. 17, 1918
Bourmont .....	Aug. 17, 1918	Aug. 30, 1918
Chatenois .....	Aug. 30, 1918	Sept. 5, 1918
Toul .....	Sept. 5, 1918	Sept. 8, 1918
Ansauville (St. Mihiel salient).....	Sept. 9, 1918	Sept. 14, 1918
Essey (St. Mihiel salient).....	Sept. 14, 1918	Sept. 25, 1918
Bois de Pannes (St. Mihiel salient).....	Sept. 25, 1918	Oct. 1, 1918
Benoite vaux Couvent.....	Oct. 1, 1918	Oct. 4, 1918
Recieourt.....	Oct. 4, 1918	Oct. 6, 1918

Stations	In France	Arrived	Left
Bois de Montfoucon (Argonne sector).....		Oct. 6, 1918	Oct. 11, 1918
Cheppy (Argonne sector).....		Oct. 11, 1918	Oct. 19, 1918
Camp Drachen (Argonne sector).....		Oct. 19, 1918	Nov. 3, 1918
Champigneulles (Argonne sector).....		Nov. 3, 1918	Nov. 4, 1918
Autruche (Argonne sector).....		Nov. 4, 1918	Nov. 6, 1918
Grandes Armoises (Argonne sector).....		Nov. 6, 1918	Nov. 7, 1918
Moisoneolle (Argonne sector).....		Nov. 7, 1918	Nov. 10, 1918
Buzancy .....		Nov. 10, 1918	Nov. 14, 1918
Landreville .....		Nov. 14, 1918	Nov. 16, 1918
Brandeville .....		Nov. 16, 1918	Nov. 20, 1918
Montmedy .....		Nov. 20, 1918	Nov. 21, 1918
In Belgium			
Virton .....		Nov. 21, 1918	Nov. 22, 1918
Arlon .....		Nov. 22, 1918	Nov. 23, 1918
In Luxembourg			
Mersch .....		Nov. 23, 1918	Dec. 2, 1918
Consdorf .....		Dec. 2, 1918	Dec. 3, 1918
In Germany			
Welschbillig .....		Dec. 3, 1918	Dec. 5, 1918
Speicher .....		Dec. 5, 1918	Dec. 6, 1918
Birreshborn .....		Dec. 6, 1918	Dec. 8, 1918
Dreis .....		Dec. 8, 1918	Dec. 9, 1918
Adenau .....		Dec. 9, 1918	Dec. 15, 1918
Ahrweiler .....		Dec. 15, 1918	

A PROTEST

It is said that 90 per cent. of the work of the United States workmen's compensation commission is medical and as there is no provision for a medical representative on the commission certain protests have been made by medical organizations.

The Chicago Medical Society recently adopted the following resolution.

Whereas, There is in the executive department of the U. S. Government a branch of the service known as the Workmen's Compensation Commission, the duties of said commission will be medical in character; and,

Whereas, The President of the United States has nominated as members of said commission the Reverend R. McMillan Little, of Swarthborne, Pa., a preacher of the United Presbyterian Church; a Mrs. Axtell, of Bellingham, Wash., a social worker, and a defeated candidate for Congress, and a J. J. Keegan, of Indianapolis, a member of the International Association of Machinists, formerly a member of the state legislature; and,

Whereas, The first of these mentioned is stated to be a Republican, the second a Progressive, the third a Democrat; and,

Whereas, All rules of business logic would suggest that, where ninety (90) per cent. of the duties is medical in character, at least one member of the commission should be a physician; therefore, be it

Resolved, That the Chicago Medical Society, the largest local medical society in the United States, through its council, protests against this unfair discrimination against the medical profession, and while we realize that this condition was probably unintentional and unpremeditated, ask that the personnel of the commission be altered or enlarged to include medical representation.

A SIDE LIGHT ON HEALTH INSURANCE

Investigation of the various conditions which bear in any way upon social insurance develop many interesting side lights. The most important of these appeared while studying the conditions of medical practice. It develops the very pertinent query, "Where are the doctors to come from who will accept employment under compulsory health insurance legislation?"

Before the war called a large number of physicians to the colors there were only about 75 per cent. of the adequate number of physicians, outside of the large cities, in the State of New York. Federal service has decreased this number for an uncertain period. In the large cities this shortage of physicians did not obtain, but the percentage of inefficient men was greater so that it might be reasonable to estimate that the large cities contained approximately the same proportion of competent physicians.

For the past ten years the number of physicians registering annually in the United States has progressively decreased. In 1906, 7,865 physicians were registered in those states which required registration for admission to practice, while only 5,432 were registered in 1917. During this period the population of the United States increased about 20 per cent.

There is, therefore, no indication that the shortage of physicians is likely to be overcome.

A survey of two up-state counties showed that only 17 men out of 237 who were in active general practice were not overworked. These 17 men were incompetent or for some other reason were unable to give satisfactory service. None of the competent men would consider accepting employment under health insurance legislation, and all of them would welcome release from part of their work. The sev-

enteen would possibly be willing to accept work under any conditions.

These conditions probably do not exist throughout the United States, but if we can consider that 635 men out of the whole number (5,432) who registered last year, registered in New York State, the proportion is reasonably well maintained.

Impasse—Any health insurance legislation must fail for lack of physicians to operate it. This is the negative side of the situation.

There is a reverse, or positive, side.

The medical profession, more than any other group, realizes that certain conditions exist to which remedial measures must be applied, both for the good of the public health and the establishment of desirable social conditions. If the remedy is health insurance it is a totally different kind of health insurance than has so far been offered.

The conditions of ill health and its causative factors can be best met by the medical profession. It is folly for economists to attempt to formulate acts to meet conditions with which they have the merest surface acquaintance. It is just as foolish for national or state medical societies to attempt to cooperate with groups of economists or labor leaders, accepting as a foundation for their edifice the theories of those partially informed groups. Social insurance is too far reaching in its influences and possibilities for harm to be applied to a great state for the purpose of proving or disproving the theories of a group of men who merely expect that they can apply European methods to American conditions. The cooperation will have to be reversed. If conditions are to be adequately met it will have to be by plans founded upon knowledge possessed by the medical profession, and cooperated in by economists and labor leaders.

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### SOCIETY PROCEEDINGS

At a recent meeting of the Fort Madison Medical Society, Dr. F. C. Roberts was elected president; Dr. A. F. Phillipott, vice-president; Dr. Feichtner, secretary-treasurer.

The Monroe County Medical Society met in Dr. Jackson's office January 21 where a good program was enjoyed by the members present. Election of officers for the ensuing year resulted as follows: Dr. C. J. Lukens, president; Dr. J. B. Hugate, secretary-treasurer; Dr. J. T. Gray, censor.

The Davis County Medical Association met in the office of Dr. H. C. Young, electing the following officers for the year. President, Dr. W. W. Parker of Floris; vice-president, Dr. T. B. Toben of Bloomfield; secretary, Dr. H. C. Young of Bloomfield. Lieut. C. D. Shelton gave a very interesting and instructive talk on "Complications of Influenza." The association decided to meet once each month and the next session will be held Monday, February 10.

The Iowa County Medical Society met at Marengo and the profession was well represented. The election of officers resulted in the naming of Dr. C. F. Noe of Amana for president, and Dr. Diederich of Marengo, secretary-treasurer.

Dr. Stella Mason was elected president of the Cerro Gordo County Medical Society at the regular meeting held in the Chamber of Commerce rooms. Dr. F. G. Murphy was elected vice-president and Dr. Steven O'Brien was chosen as secretary and treasurer.

The monthly meeting of the Burlington Medical Society was held at the rooms of the Commercial Exchange Tuesday evening. The event was well attended and three papers were presented by physicians, which were freely discussed.

The lack of contagious disease in the city caused some comment, while general health conditions were reported as good. Four physicians from Keokuk and four from Galesburg were present at the meeting and took part in the discussions.

The annual meeting of the Hardin County Medical Society was held at the Grand Theatre. There was a good attendance considering how busy the doctors are at this time.

Miss Blanche Stoddard gave a talk on health and explained the work of the county nurse in the public schools.

Drs. King of Eldora and Wray of Iowa Falls gave an account of their experiences in the service, both surgical and personal.

The salary of Dr. Marsh as physician for the county poor was raised from \$400 to \$500, and a committee was appointed to see the board of supervisors about increasing the allowance for that purpose.

Dr. D. O. King was elected president; Dr. Miller of Acklèy, vice-president; Dr. Marsh, secretary, and Dr. Wray, treasurer. Dr. Koeneman was chosen delegate to the state meeting with Dr. Van Tiger alternate.

The mid-summer meeting will be devoted to tuberculosis clinic.

The Webster County Medical Society at its meeting last evening arranged to have the eyes of the school children looked after by the eye specialists of the city. There are many cases of eye disease in the schools and free treatment will be given by the doctors to school children unable to pay for treatment.

The society was addressed by Dr. Carver who gave a very interesting report of his work in hospitals in France.

At the meeting to be held next week, Dr. Kime will address the society on "The Water Supply of Fort Dodge." It is felt that the city is facing the problem of a pure and adequate water supply and the medical society will consider the question in all its relations.

A. A. Zimmermann of Waterloo, who as lieutenant in the United States Army saw service in France, and Dr. W. H. Bickley gave the program for Fortnightly Club when it met last evening with Dr. and Mrs. J. E. Ridenour. Lieut. Zimmermann related incidents he witnessed or experienced while at the front and told of the difference between bravery as it is commonly considered and as it is at the front. He said experience had proved everyone to have fear at first and it was not until a man got into his work in the field that he forgot it. Dr. Bickley read a paper on "The Wonders of Modern Surgery."

New members received at this meeting were Messrs. and Mesdames W. I. Atkinson, Fred J. Clark, and A. F. Gates. A program committee was appointed with the following members: Dr. John Bunyan Smith, chairman; Dr. H. A. Boysen, Misses Maria Brace and Lina Moore, and Mrs. J. E. Ridenour.

Members of the Marshall County Medical Society, to the number of thirty, held their annual meeting at the Marshalltown Club, re-elected the old officers, enjoyed dinner, and listened to interesting addresses by officers of the base hospital at Camp Dodge, who discussed influenza and its two most common complications, pneumonia and empyema.

The re-elected officers of the society are Dr. R. R. Hansen, president; Dr. W. S. Devine, vice-president; Dr. G. M. Johnson, secretary and treasurer; Drs. Devine and R. F. French, censors.

Following the dinner at which the society had as its guests Major Edgerly, chief of the medical section of the base hospital at Camp Dodge, and Captain Hamilton, head of the internal medicine department of the base hospital. The visiting medical men told of their army hospital experiences with the influenza epidemic.

Major Edgerly described graphically the conditions at Camp Dodge while the epidemic endured in severity and handicaps under which the medical corps labored. He accorded high praise to all members and departments of the corps, from surgeon to nurses, who had to be ordered from bedsides and into bed themselves when attacked by the disease. The major is convinced that the disease as it came under his observation is practically distinct from former pandemics of grip, and quoted men of high national repute to that effect, some of whom classified it as "plague." He discussed the different treatments used and evolved during the epidemic.

Captain Hamilton gave most of his attention to a late method of aspirating lungs in empyema, which has had extraordinary prevalence following the epidemic. He favored what is termed the "closed" system of aspiration as opposed to a resection of a rib and open drainage of the cavity. In this Dr. R. E. Keyser, H. H. Nichols and M. U. Chesire differed from the captain, and each made a showing of great success under the resection, which all stated may be painlessly done and without shock under local anesthesia. The difference of opinion brought on a dis-

cussion very interesting to medical men present.

A general discussion of the influenza epidemic which cost so many lives in Burlington was discussed from every viewpoint in the meeting of the Des Moines County Medical Society held in the Burlington Hotel.

Several of the doctors delivered interesting talks on the benefit of a quarantine, on the advantage of inoculation, on the different effects of the disease and many other preventives and results of the "flu."

There were sixteen members present to enjoy the dinner which was served before the meeting, and all of the physicians were glad to welcome back Dr. Carl Cooper, who was recently discharged from service in the U. S. Army.

The society has seven other members still serving their country, and their dues for this year was looked after by the organization. The dinner was served at 6:30 o'clock.

The new officers elected in the December meeting took their places last evening in the following order:

Dr. H. D. Kriechbaum, president; Dr. J. R. Kelley, of West Burlington, vice-president; Dr. J. R. Patterson, secretary and treasurer.

A meeting of the Clarke County Medical Society was held February 6, 1919, at which the fee schedule was revised as printed below. This is made necessary not only that our charges may conform to those of surrounding communities, but that medical men may better adjust themselves to the economic changes of the times:

Day visits inside city limits, 7 a. m. to 7 p. m., \$2.00.

Night visits inside city limits, 7 p. m. to 7 a. m. \$3.00.

Day visits outside city limits, 7 a. m. to 7 p. m., \$2.00 and \$1.00 per mile or major fraction thereof.

Night visits outside city limits, 7 p. m. to 7 a. m., \$3.00 and \$1.00 per mile or major fraction thereof.

For each additional member of the family prescribed for when more than one are sick, \$1.00 to \$2.00.

Temporary emergency medicines will be furnished in country work only.

Consultation visits with other physicians, \$10.00, and regular mileage if outside city limits.

**Obstetrics**—Ordinary case of labor, inside city limits, \$20.00. Ordinary case of labor, outside city limits, \$20.00 and \$1.00 per mile or major fraction thereof. Instrumental delivery, outside city limits, \$40.00 and \$1.00 per mile or major fraction thereof. Abortions and delivery of placenta, same as ordinary labor. Office work and surgery by agreement only.

## DEATHS

Dr. H. F. Steinle died at his home in Burlington, October 15, 1918. Dr. Steinle was born in Galena, Illinois, April 9, 1867; was educated at St. Ignatius College, San Francisco and received his medical degree from Gross Medical College, St. Louis. After

serving as an intern in the Union Pacific Hospital in Denver he located in Burlington in 1891. Dr. Steinle was prominent in professional and social matters and acquired considerable reputation as a surgeon.

Dr. Linehan resided in Dubuque during practically his entire lifetime. He attended St. Patrick's school, the local high school and Dubuque college, receiving his medical course at the St. Louis College of Physicians and Surgeons. He later took a post graduate course at the University of California. Since that time for fourteen years, he had practiced his profession in Dubuque, being associated with his brother, Dr. Lewis Linehan, with offices at 1238 Main street.

Dr. Linehan was a member of the American Medical Association, Dubuque County Medical Association and Iowa State Medical Society.

The deceased was the son of the late Mr. and Mrs. D. W. Linehan. He has three sisters, Mme. Linehan of the Madames of the Sacred Heart of New Orleans, Miss Elizabeth and Miss Blanche Linehan of this city, and two brothers, Edmund A. of Dubuque and Lieutenant Lewis Linehan of the Medical Corps at Camp Greenleaf, Ga., besides a host of friends.

The death of Dr. Matt. Linehan is deplored by the Dubuque County Medical Society, which has adopted the following resolutions:

"Whereas, We, the members of the Dubuque County Medical Society, in special assembly, have learned with deep regret of the sad and premature death of one of our members, Mathias D. Linehan, who died at his home on the 15th of October, this year, from the results of an epidemic disease at present sweeping the world, i. e., Spanish influenza; and,

"Whereas, the now deceased Dr. Mathias D. Linehan was a native born of Dubuque and has been a contemporary in the practice of medicine and surgery for the last twelve years, so that it has been our privilege to know him intimately.

"Therefore, be it resolved that the members of this society hereby express their deep grief at the death of their colleague, who was always a kind, conscientious and courteous gentleman.

"Resolved, also, that in his death this Society has lost a most valuable member whose life and character is worthy of emulation, and that this community has lost a citizen of character and of noble impulses.

"Resolved, That this Society express its sorrow to his bereaved family, and

"Resolved, That a copy of this resolution be presented to the family, spread upon the records of this Society and copies be given to the daily papers for publication."

N. BRAY,  
H. H. PAHLAS,  
J. H. SCHRUP,  
Committee.

Dr. Mueller was born in Iowa City, March 29, 1870, his parents, Adam and Mrs. Justina Buettner Mueller, being of the pioneers of the place, and with

the exception of one year, 1895-1896, his entire life was spent in this community. Dr. Mueller graduated from the State University of Iowa in 1895, after three years work in the College of Liberal Arts followed by a medical course and later by post-graduate work in bacteriology and was for several years after assistant in gynecology in the Medical College at State University of Iowa.

Dr. Dahl was born December 19, 1885, at Manly, Iowa, and was a son of Mr. and Mrs. Chris Dahl. He attended seminary in Osage for four years, graduating from there, after which he went to Des Moines and took a four year course at Drake University, graduating in 1913, and came to Decorah in October of the same year.

On March 30, 1914, he was united in marriage to Miss Imo Zackary at Des Moines.

Dr. Thomas Cullen died on September 14, 1918, at Baltimore. He was silver medalist of Toronto University in 1890 and from 1892-1896 was associate professor of gynecology at Johns Hopkins University.

Dr. Cullen was an extensive contributor to surgical literature. Notably, his book on Adenomata of the Uterus in 1908 and his exhaustive work on the Umbilicus in 1916.

Lieut. Royden Benedict Yoder was born in Minden, Iowa, November 29, 1885, and died at Camp Custer, Michigan, December 9, 1918, aged thirty-three years, ten days.

With his parents he came to Haddam, Kansas, in 1886, and to Washington, Kansas, in 1900. He graduated from the Washington High School in 1904, and from his medical school in 1908, and in May of that year located at Bement, Ill. In December, 1908, he located at Cerro Gordo, Ill., and the same month was married to a former classmate, Laura E. Totten, of Washington, Kansas. To this union were born two children, Dorothy Irene and Wilma Corrine.

Later Dr. and Mrs. Yoder moved to Cass Lake, Minnesota, and from there to Northwood, Iowa, where they have since resided.

Dr. Newcomb S. Smith, seventy-nine years old, a former eye, ear, nose and throat specialist of Sioux City, and a pioneer of Marshall county died at the soldiers' home, of cancer of the throat.

Doctor Smith came to this county in 1860, settling at Albion, where on July 28, 1862, he enlisted in Company K, Thirty-second Iowa Infantry. He became hospital steward of the regiment and two years later was discharged for promotion to become assistant surgeon of the Thirty-fifth Iowa. Not having completed his course in medicine he entered the State University of Iowa after the war and was graduated. He then was appointed a surgeon in the regular army, and for several years was stationed at Fort Randall, Oklahoma.

After leaving the army service, Dr. Smith practiced at Washington, where he graduated an eye, ear,

nose and throat specialist in Georgetown University. Later he came to Marshalltown and has practiced also in St. Louis, Sioux City and Rapid City, South Dakota.

Dr. Francis Marion Yost died at his home in Center Point, October 12, 1918. Dr. Yost was born near Penn, Maryland, on the boundary line between Maryland and Pennsylvania, March 13, 1825. In 1853 he began the practice of medicine and in 1855 settled in Center Point which at that time consisted of a store, blacksmith shop and hotel. On March 13, 1855, Dr. Yost married Miss Charlotte A. Getchell. Dr. C. G. Yost, a surviving son, represents the Yost family in the practice of medicine in Center Point.

Dr. Yost has the remarkable record of having practiced medicine in Ling county for sixty-three years.

Dr. Samuel L. Hauck of Ottumwa died at his home, 210 West Fourth street, from a stroke of apoplexy.

Samuel L. Hauck was born at Lebanon, Pennsylvania, October 20, 1869 and was in his fiftieth year. He came to Wapello county in 1892 and married Miss Nina Frances Campbell, October 10, 1895.

Dr. Hauck was for twenty-seven years employed by the Burlington railroad as surgeon in the voluntary relief department and for the past few months had been with the Illinois Central railroad as sanitary surgeon for the system with headquarters in Chicago. Dr. Hauck was a member of the Wapello Club and Country Club. He graduated from Rush Medical College, Chicago, in 1891, a year before coming to Ottumwa.

Heikobus Johannes Hebertus Hoeve, Meherrin, Virginia; University of Illinois, Chicago, 1905; aged thirty-seven; at one time a member of the Iowa State Medical Society, and professor of anatomy, and director of the pathologic department in Drake University, Des Moines; a member of the American Association of Anatomists; died at his home, December 22, from pneumonia following influenza.

Dr. Spicer was born in Burlington, Vermont, January 25, 1852. When a very young man he went to St. Louis, Missouri, and finished a course of medicine at Washington University.

Soon after graduation he went to Blainstown, Iowa. Here he married Miss Elsie Porter. He remained here twenty-six years—happy with his family, his work and his friends.

Mrs. Spicer died in 1898. Wishing to get away from the scenes of his former happiness, the Doctor went to Cedar Rapids and practiced in that city fifteen years. Then he retired and went to Denver to live with his son, Dr. J. S. Spicer, Jr.

Last summer, when the government sent out the urgent appeal for doctors he tried to get into the service. He was refused because of his age. This is why he again began practicing, coming to Grinnell

on account of so many doctors leaving here to go into service. He came in August, and soon had a good practice.

Dr. Spicer is survived by three sons: Captain Frank Spicer, a physician in the base hospital at Camp; Dr. J. S. Spicer, Jr., a dentist of Denver, Colorado, and Lieut. Geo. P. Spicer, in service in France.

Howard Newton Jenkins of the Canadian engineers attached to the Third Division in Canadian Expeditionary Forces, died February 23, 1919 at the Indian Military Hospital, at Eastborn, England, of influenza and pneumonia, just prior to embarkation for home. Corporal Jenkins was the son of Dr. and Mrs. Hugh Jenkins of Preston, Iowa, and was born December 13, 1889. The activity and the efficiency of the Canadian contingent in France is well known and it is also well known that the engineers corps connected with railroads and bridge work were exposed to great hardships and danger.

## MEDICAL NEWS

The board of supervisors of Cass county, Iowa, will receive bids until 12:00 o'clock, noon, Thursday, January 2, 1919, for county poor practice, including all medical, surgical and obstetrical services, general and special, required, for the year 1919, bids to be by supervisor districts or divisions of supervisor districts, the third district, City of Atlantic, to include jail and county farm inmates. Bids will also be received for hospital care for the year 1919, giving amount per week for each patient including all charges of whatever nature for care, treatment and operations. Compensation for poor practice will be paid quarterly and bills for hospital care should be filed monthly, and will be allowed at succeeding board meetings. Contract and bond to be furnished as required by law. The board reserves the right to accept or reject any or all bids.

We publish the following to show the deplorable condition of the profession in many parts of Iowa. We do not know how many counties there are in the state where the sick poor are auctioned off to the lowest bidder, but altogether too many. We wonder if the profession in Dubuque is opposed to health or social insurance, workmen's compensation, etc.

### Notice to Physicians

Notice is hereby given that sealed proposals for the position of county physicians in the various districts of Dubuque county, Iowa, will be received at the county auditor's office up to 2:00 o'clock p. m. of Tuesday, February 11, 1919, and opened at that time.

Said bid must be in the hands of the county auditor not later than the time stated. Each bid for the position of District No. 1 to be accompanied by a certified check of \$500.00 and \$50.00 to accompany each bid for Districts Nos. 2, 3, 4, and 5, for the faithful performance of contract if awarded.

Districts are divided as follows:

District No. 1—Julien, Dubuque, Mosalem and Table Mound townships.

District No. 2—Jefferson, Peru and Center townships.

District No. 3—Concord, Liberty, New Wine and Iowa townships.

District No. 4—Cascade, Dodge, Taylor and Whitewater townships.

District No. 5—Vernon, Prairie Creek and Washington townships.

The bonds of the several physicians who receive contracts are fixed in the following amounts:

District No. 1.....	\$5,000.00
District No. 2.....	500.00
District No. 3.....	500.00
District No. 4.....	1,000.00
District No. 5.....	1,000.00

Copy of contract and the rules and regulations governing district physicians which are made a part of the contract are on file in the county auditor's office and may be seen by any physician who contemplates making a bid.

The board of supervisors reserves the right to reject any or all bids.

(Signed) JOHN INGRAM,  
County Auditor.

Dated at Dubuque, Iowa, this 29th day of January, 1919.

Only one bid for the county medical work was filed with the board of supervisors at a meeting held this afternoon for the purpose of receiving bids and awarding the contract. The single proposition was offered by the Dubuque County Medical Society. Late this afternoon the contract had not been awarded as members of the society and the board were going over certain details of the proposed plan. The medical society's bid for the year was \$2,000.

First Lieutenant Frank L. Williams, medical corps, for extraordinary heroism in action in Champagne, east of Rheims, on July 15, 1918, and near the River Ourcq, northeast of Chateau Thierry, France, on July 30, 1918. Lieutenant Williams voluntarily left a dugout on the Champagne front and for more than two hours, all the time under shell-fire, ministered to the needs of wounded men who were lying in the open. During the advance across the River Ourcq he voluntarily remained in exposed positions under heavy shell-fire, caring for and dressing the wounded until he was severely injured.

Dr. A. M. Pond, has returned to the city from Camp Merritt, where he was recently mustered out of the service. Dr. Pond served fourteen months in the U. S. Medical Corps, putting in most of his time at Camp Merritt, where he was stationed almost a year. He declares that he saw 1,900,000 Americans leave this country for the battle fronts in Europe. Dr. Pond will resume his practice at Dubuque.

Major Thomas Burcham, formerly assistant sanitary inspector of the 42nd Division, of which the 168th Infantry of Iowa is a unit, returned to Des Moines Thursday for a brief visit with his family, before taking up duties at the Ft. Des Moines Reconstruction Hospital. Although he visited every American sector while in France, and has been under fire numerous times, Major Burcham went through the war without one single scratch. When the 42nd Division was formed, the Des Moines doctor became assistant sanitary officer. In February, 1917, he was made assistant to Lieut. Col. James T. Case of Battle Creek, Mich., senior consultant to Roentgenology for the American Expeditionary Forces. When the great German drive was directed against the English and Canadians, Major Burcham was in the English trench in Bethune. The Iowa officer was also on the Argonne front the second day of the drive. "There isn't a braver soldier on earth than the American doughboy," Major Burcham said.

The Iowa Lutheran Hospital will soon erect a building to be used for the care of women and children. They have been contemplating this move for several years and have been gathering funds for the purpose.

All honor is due to the physicians of Northwood and every other town who have been on the jump constantly night and day since the outbreak of the influenza epidemic. Not many people would care to travel over the miserable roads we have had in Worth county for several weeks past, especially at night, and probably the doctors don't like it either, but they go just the same. If every one was as faithful to his trust as the average physician what a splendid world this would be in which to live.

Opposition to the bill by Senator Price of Monroe county to license chiropractors was voiced by Dr. Lewis Schooler, Dr. J. W. Cokenower of Des Moines, and others, in a hearing before the senate committee on public health. Other local physicians who attended the hearing were Dr. F. E. V. Shore, Dr. John H. Peck, Dr. Thomas F. Duhigg, Capt. R. F. Throckmorton of the army medical corps and Dr. G. H. Sumner, secretary of the state board of health.

Lieutenant Colonel Rafaele Bastianelli, professor of surgery in the University of Rome and consulting surgeon to the Italian Army, has been granted an honorary fellowship in the New York Academy of Medicine by a unanimous vote. Colonel Bastianelli recently delivered before an enthusiastic audience at the academy a remarkable lecture on lung surgery at the Italian front.

The Cedar Valley Hospital of this city closed its doors soon after the election was announced. Thus it is that the city is deprived of one of its most valuable assets and its most valuable institutions. It is

hardly understandable that a city of eight thousand people should be without modern facilities for the care and treatment of its sick and injured, but such is the truth, and we will have to make the best of it.

The Class of 1894, of the Keokuk Medical College, then known best as the new college, will hold a reunion at the Hotel Iowa on March 6, the twenty-fifth anniversary of its graduation.

Doctors May Habenicht and Nelle Noble of Des Moines will take part as speakers in a Council Bluffs Y. W. C. A. campaign, as follow-up workers, in the army camps' social disease riddance program.

The American Journal of Orthopaedic Surgery, which is the official organ of the American Orthopaedic Association, announces that with the coming of the new year it will enlarge its scope by serving also as the official organ of the newly formed British Orthopaedic Association. Henceforth the name of the publication will be The Journal of Orthopaedic Surgery.

The Marquette University of Milwaukee has succeeded in raising its medical school endowment fund of \$1,000,000, one-third of which was donated by the Carnegie Foundation for the Advancement of Teaching. The income from this fund is to go for the salaries of teachers and maintenance and cannot be used for buildings, additional funds for which are now being sought.

Nearly one hundred English nurses have been awarded the soldiers' silver medal "for bravery in the field." The French army has conferred the Croix de Guerre on Nursing Sister Anna MacKinnon, a British nurse attached to the French Flag Nursing Corps.

Three American women doctors have received lieutenants' commissions in the French army. They are Dr. Caroline Finlay, Dr. Anna von Sholly, and Dr. Mary Lee Edward, all of New York and attached as surgeons to the military unit of the women's overseas hospitals. The three received decorations from the French Government for excellent surgical work recently performed under heavy bombardment, and after that their commissions. The French surgeon in command of the hospital at the front in which they were working has given them the highest praise, and has been quoted as calling Dr. Finlay a "model surgeon."

According to the Army and Navy Journal for November 30, 1918, the office of the Surgeon General of the Army is authority for the statement that probably less than fifty American soldiers have suffered total blindness from wounds received in action. This is considered a remarkable record considering the number of men engaged and the intensity of the fighting in the sectors where Americans were engaged.

Bids will be received at the county auditor's office for medicine and medical attention for the inmates of the county jail, the county farm and the poor of the county of Monroe for the year beginning December 16, 1918.

Dr. J. W. Cokenower, Des Moines physician, chairman of the legislative committee of the Iowa State Medical Association, yesterday advised members of the house public health committee that the medical association is behind them. "We are for anything which will make all of us live longer and have a better time," said Dr. Cokenower.

A bill to show the appreciation of the citizens of Iowa for the service which medical officers in the United States Army and Navy have given, was introduced in the house of representatives by Dr. G. A. Smith of Clinton. The bill provided that the board of medical examiners of the state be authorized to issue without examination a certificate of reciprocal registration to practice medicine and surgery in Iowa to any honorably discharged medical officer of the army or navy who may make application. The only thing incumbent upon the officer desiring such a certificate shall be that he furnish to the board satisfactory evidence of his having held a commission and of his honorable discharge and payment of the registration fee. Dr. Smith also introduced a bill to prevent the practice of advertising medicine and appliances for the cure of social diseases. A penalty of fine of not less than \$25 nor more than \$200 is provided for violation. The house public health committee "killed" a bill which would have given all discharged army doctors the right to practice in the state without first passing an examination. The members of the committee made it clear that they took these steps in order to safeguard the health of the people of the state. "Iowa would be the clearing house and dumping ground of the medical men of the country," said a member of the committee. "We are loyal and patriotic. That is the reason we killed the bill." The bill will be recommended for indefinite postponement.

#### PERSONAL MENTION

Dr. John O. Weaver is in France and has been assigned to an evacuation hospital at Toul.

Lieut. Herman Le Roy Von Lackum, M.D., formerly of Dysart and Iowa City, has been honorably discharged and has returned to Iowa City for a brief period, before he enters the Columbia University School of Medicine, as a member of the faculty. He was formerly connected with the Iowa University College of Medicine faculty.

Des Moines will henceforth be home to Dr. Ralph W. Mendelson, who has seen military service in the Balkans, Serbia, Siam and the United States. Dr. Mendelson's military career started back in 1913, when he became examining surgeon at the Des Moines naval recruiting station. In 1915 he was in

service in the Balkans, officiating in a medical advisory capacity during the typhus epidemic. Later he was attached to the Serbian Army, and was with the brave Serbs in their retreat to Albania in the big German drive in 1915. He returned to the United States in 1916 but was sent almost immediately to Siam as head medical adviser to the Siamese government. He stayed there two years and returned to the United States in October, 1918, to join the United States forces, from which he was mustered out at Camp Dodge recently. Dr. Mendelson will practice medicine in Des Moines.

As a fitting memorial for the twenty-five Davis county boys who gave their lives while in the service of their country, and the five hundred and seventy-five others who offered their lives to their country during the great war, it is proposed to build and equip a county hospital at Bloomfield.

Dr. E. W. Burkhart, now a captain in the United States Medical Corps, having served for the past year and a half in government cantonments on the Pacific Coast, is the purchaser of the office and residence of the late Dr. J. E. Conn in Ida Grove.

Dr. E. O. Ficke, who has spent some time in the medical corps of the U. S. Army in France, reached New York on the steamer Adriatic. He will go to Camp Mills to be mustered out, after which he will return to Davenport.

Dr. G. C. Skinner of Cedar Rapids who is in a medical corps in France is suffering from wounds and shell shock in a Paris hospital as the result of the Boche bombing a first aid station back of the American lines in which he was stationed.

Dr. John Mansfield, a lieutenant in the United States Army, who has been stationed in the West for some time, has been honorably discharged from the army and is on the way home.

Dr. O. A. Fisher of Petoskey, Michigan, has decided to locate in Manson.

Dr. Max Schlaff, formerly of Fort Madison, has been made head of a Municipal Clinic in New York in effort to save child defectives.

The free baby clinics which were established in Fort Dodge last summer are being continued by Dr. Sarah Kime in the absence of Dr. Josephine Rust.

Dr. John Connell, a graduate of the Medical College, Drake University Class 1912, has been elected mayor of Valley Junction.

Dr. Chas. P. Frantz of Burlington was elected vice-president of the American Association of Railway Surgeons at the recent annual session in Chicago.

Dr. Le Roy A. Hammer, class of 1911, S. U. I., College of Medicine has won a "croix de guerre" at the front.

Dr. W. E. Lyon, who comes from Garden Grove, Iowa, has decided to engage in the practice of medicine in Newton and has opened an office in the new Allfree block.

Dr. J. W. Donda, recently honorably discharged from the United States medical service, will return to Defiance.

Colonel George F. Juenaman will succeed Major

Frothingham at Fort Des Moines hospital. Major Frothingham will resume private practice.

Dr. L. J. Bowman was recently honorably discharged from the medical service of the United States Army and will locate in Manchester.

Dr. D. J. McCarthy of Davenport is now located at Uskub, Serbia, where he has charge of the Red Cross relief work for the southern half of Serbia. As is well known, Serbia is today in a demoralized condition. Privation and starvation abound on all sides and the suffering of the people is declared to be past description. The importance and magnitude of Dr. McCarthy's work, therefore, may be well imagined. He was selected by the Red Cross for this important mission by reason of his familiarity with the peoples and language prevailing in Rumania, an adjoining country, where he had previously spent eight months. Dr. McCarthy was engaged in Red Cross work in France at the time of the signing of the armistice and from there was transferred to his present field of activity. It will be recalled that he was in Rumania at the time of that country's invasion by the Germans and that with other Americans he narrowly escaped with his life.

Dr. B. B. Everall, who has been relieved from military duty, has again taken up the practice of medicine at Monona.

Dr. O. W. Lowery of Des Moines who served four years in the Civil War, will be in Dubuque soon and address the Civil War veterans and their families and friends at a campfire at the Knight's of Pythias hall. Dr. Lowery is still in the service of his country in the medical service corps at the ripe old age of seventy-three years. After more than half a century of service, Dr. Lowery, on account of his vigor and skill as a physician and surgeon for forty-eight years, was accepted, passed the medical examination and today ranks among the oldest soldiers serving in the army or navy.

Dr. Josephine Rust, of Fort Dodge, leaves for Des Moines where she will take up her new duty as one of the state lecturers in the campaign for social morality. This campaign is to be an intensive one and should be completed by March 1. The government which is back of the entire movement has selected its speakers from among the women physicians of the state and all have had more or less connection with child welfare work. A director will come from New York and manage the Iowa campaign from Des Moines. Dr. Rust will probably be away from her work here about eight weeks and in her absence the school children will be cared for by Dr. J. W. Kime and the baby clinic conducted by Dr. Sarah Kime.

Dr. John Peck of Des Moines will conduct a clinic at the city hall.

Major Wilbur S. Conkling, commanding officer of the sanitary detachment of the Forty-second Division, is with the army of occupation, which he says, is not at Coblenz, but in their own division area. The major states that the men are anxious to get home since the signing of the armistice.

Monday, January 6, 1919, was Dr. W. A. Rohlf's

birthday anniversary and, as is his custom, he held a clinic and entertained at a banquet a number of doctors in this vicinity. There were about thirty-five out-of-town physicians in attendance, and at the clinic at Mercy Hospital, fourteen operations were performed. During the day several interesting and instructive talks were given, notable among which were talks by Dr. Richter of Chicago and Dr. Rockefeller of Des Moines. Drs. Weston and Ryan of Des Moines, also took a prominent part in the meeting.

Atlantic's medical colony is to be increased by the return here of Dr. (Capt.) Chas. B. Burke, lately discharged, who will re-open his office over 502 Chestnut street.

Dr. S. A. Spillman of Ottumwa was operated upon recently at the Presbyterian Hospital, Chicago.

Dr. C. N. Leir of Des Moines arrived home from the battle front where he was attached to the Third Battalion of the 168th in the Lorraine sector when he was a victim of the mustard gas. He left Des Moines a year and a half ago.

Two Muscatine nurses have been chosen to do reconstruction work in the near East. Miss Maud McGwigan and Miss Ethel Dea Wallace. They will leave at once for New York and soon sail for Turkey. Two hundred Americans will comprise the party set out by the American committee on relief in the near East.

Lieut. A. A. Hoffman of Waterloo, who has been in the medical corps of the army, has received an honorable discharge and will resume practice in Waterloo.

Dr. Nelle Noble has started on a speaking tour of several weeks in Iowa, in the interests of the Federal child conservation movement. During her absence, her practice will be handled by Doctors Habenicht and Scott.

Dr. Jeannette Throckmorton, one of Chariton's leading physicians, volunteered her services in the medical department of the government last summer and, having passed all the necessary examinations held herself in readiness for a call. She was summoned to Chicago last December by Surgeon General Rupert Blue to be present at the meeting of the National Public Health Association, and to address that body. At this conference she received her appointment to lecture to the girls and women of the schools and colleges, factories, women's clubs and federations of this state, or wherever called by the government.

Dr. Russell C. Doolittle has gone to Boston where he will spend several months as assistant medical officer in the Boston Psychopathic Hospital, continuing his special line of work and will then return to Des Moines to resume his labors with his uncle, Dr. John C. Doolittle, in conducting the Retreat, which has won widespread fame in its successful treatment of mental and nervous troubles. Dr. Doolittle is another Hopkinton boy who deserves his success.

Mustered out of the service with an honorable discharge after fourteen months faithful and strenuous work for Uncle Sam, Miss Estella Campbell, promi-

nent Des Moines nurse, is back in Dr. Priestley's office taking up again the tasks of peace. Miss Campbell organized the nursing force at the base hospital at Camp Dodge and had full charge of it for six months. Then she was called to Presidio at San Francisco to head a department in the port hospital she held for eight months.

Major H. H. Frothingham, commandant at Fort Des Moines reconstruction hospital, will leave soon for Chicago to resume practice of medicine, interrupted when the United States entered the war. Frothingham will be relieved of duties at the fort hospital by Col. George F. Juenaman of the regular service. The colonel is now at Fort Logan Roots, Little Rock, Arkansas. Retirement of the major comes at his own request. He has been in service for twenty-one months and has been in command at Fort Des Moines three months.

Major A. V. Hennessey of Council Bluffs has returned home with an honorable discharge and is again in his office in the City National Bank. He enlisted in August, 1917, and was sent to Honolulu as chief of the surgical service, and operating surgeon in the base hospital there. He entered the service as captain and he received his majority last March. While in Hawaii he was president of the medical advisory board and made a complete tour of the islands. He received his discharge on December 31, 1918.

Dr. J. S. Tillie of Muscatine, city food inspector, whose term expired, was unanimously re-elected.

Davenporters who remember Dr. Ned Middleton and Captain Ned Middleton of old Company B will be glad to know that he has survived some three years of the world war, during which he has been a member of the medical corps and of the Royal Engineers. He enlisted in Canada early in the war, conducted a hospital in the Balkans for some time, and was with the Salonica army in the final great offensive that ended with the surrender of Bulgaria.

Charles Shelton of Bloomfield, returned home from Kansas last week. He was given an honorable discharge from the army at Topeka where he had been stationed for several months. The doctor was a member of the medical board stationed at Topeka by the United States Army, to make a special study of pneumonia. For the last three months he had been on special detail work to make a survey of the effects of Spanish influenza on the people in the western counties of Kansas.

Dr. Theodore Willis, formerly Dr. A. Steindler's associate in the University Hospital, has returned from war, honorably discharged and is to resume his service for the state and humanity, with the latter scientist.

Major Wilbur S. Conkling who entered the United States service in October, 1917 as chief surgeon of the 168th Regiment, a unit of the Rainbow Division (42nd) was later assigned as director of division field hospitals and still later as director of division sanitary train, received on March 7 the rank and title of Lieutenant Colonel in the United States Army. Lieut.-Col. Conkling is with the Army of Occupation at Ahrweiler, near Colbentz on the Rhine.

# The Journal of the Iowa State Medical Society

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No. 5

## THE PATHOLOGY OF STREPTOCOCCUS INFECTION OF THE LUNGS\*

MAJOR D. J. GLOMSET, M.O.R.C., Camp Dodge  
(Approved by the Surgeon General)

*Mr. President and Members of the State Medical  
Society:*

I hope I may be forgiven for appearing before you to discuss a subject different from that announced on your program. The reason for this change of heart on my part is that, since this program was arranged, we have been passing through a devastating epidemic at Camp Dodge, and as Major Miller told you yesterday, this epidemic has occurred in practically all the cantonments of the United States and to some extent among the civil population. I, therefore, thought that inasmuch as you had been given the clinical aspect of the condition by Major Miller, it might be of more interest to you if I gave you some of the gleanings which we have secured at Camp Dodge concerning the epidemiology and etiology, the pathogenesis and the morbid anatomy, of this streptococcus infection of the lungs.

The epidemic, as Major Miller has told you, struck us about the twentieth of March. I use the word "struck" on purpose because we were really knocked senseless, so to speak. We were running along with a variable death rate from various diseases, averaging a little less than one a day, up to the twentieth. Then, all of a sudden, the deaths began to jump to three, four, five, six, seven and as high as ten per day. And the microbe which we found in the great majority of these cases was an organism which is either the same as, or very similar to, the streptococcus hemolyticus which every practicing physician and surgeon is familiar with as the cause of puerperal sepsis, erysipelas, streptococcus meningitis, and other serious infections. But epidemics due to this coccus have been rare up to this time, although they have been described in the Scandinavian countries, in Boston, in Baltimore, and in Chicago. In these epidemics it was thought

that the streptococcus was distributed by milk. And, indeed, Rosenow found that the milk, the cheese, the butter, and the cream consumed at Fort Riley during this epidemic harbored hemolytic streptococci. We searched the food at Camp Dodge, but have failed to find a sufficient number of these organisms either in milk, cream or butter, to justify us in assuming that this infection was spread through the milk.

The question has naturally arisen all through the country—how was this epidemic brought about? A large number of theories and suppositions have been advanced. Anti-typhoid vaccination, dust and cigarette smoking have all been accused of being causative agents. Unfortunately I am not bright enough to advance any new plausible hypothesis that can explain the existence of this and similar epidemics, but I wish to call attention to certain simple factors which in my opinion at least should be investigated thoroughly before any hypothetical cause is given for these serious epidemics. For instance, it is practically established now that most of these so-called "colds" which occur during the winter are due to the streptococcus hemolyticus. And it is entirely possible that a sort of a local immunity is developed against these colds so that a serious infection rarely results from them. And although we have had so far one hundred cases of lung infections in which we have found streptococcus hemolyticus, that represents but a small percentage of these who have suffered from infections of the throat. These probably possess an immunity against their particular strains, but when they come to camp to mingle with soldiers from other communities, a good many of them bring virulent streptococci with them, a liberal exchange of germs begins in the barracks, because they talk and cough into each other's faces, and if we could visualize these organisms we would see a tremendous germ bombardment going on between the individual mouths—a liberal exchange, you see, of strains of streptococci. This bombardment is constantly going on at mess and during sleeping hours every night, and furthermore the stress and strain of army life is hard

\*Presented at the Sixty-Seventh Annual Session, Iowa State Medical Society, Fort Dodge, May 8, 9, 10, 1918.

on the recruits. Hence you can readily see that there will be a number of men whose resistance is sufficiently lowered to render a severe infection possible. And that is what occurs. We have cultured between three and four thousand men of the incoming troops, and have found that from 5 to 40 per cent. of them harbor a streptococcus hemolyticus in their throats, and that in companies where there is much sore throat the percentage of streptococcus hemolyticus is invariably much higher than in the organizations relatively free from throat infections. Just when these organisms are virulent, and when not is, however, difficult to say.

The organism which is responsible for this condition belongs, as you know, to a group of cocci which, on account of their chain formation, is known as streptococci. They are widely distributed in nature, but the varieties which produce a zone of hemolysis around the colony when grown on blood agar plates, are most frequently found associated with infections.

Evidently the organism with which we have been dealing produces its initial infection in the oral cavity in the form of a pharyngitis. Sometimes it is a tonsillitis, this is rarely a typical follicular tonsillitis; but often an exudative membranous affair that extends over the tonsils, the uvula, and also the pharynx. In this we find practically a pure culture of this organism. There is produced then, first of all, a pharyngitis, which, by the way, is likely to last for weeks, and the patient then becomes a true carrier. Now if he has good resistance, the process stops at this stage, and this is usually the case. However the infection may extend to the accessory sinuses of the nose, it may enter the frontal sinus, it may produce otitis media, and in some cases a streptococcic meningitis. It rarely, however, goes that far. We have had now, if I remember correctly, only six or seven cases of hemolytic streptococcus infection of the meninges. But the route which the organism usually takes in a susceptible individual, is downward through the pharynx to the trachea, and into the bronchioles. Sometimes it produces only an ordinary catarrhal inflammation, but very frequently the infection is more severe than that, so that there develops a hemorrhagic tracheitis and laryngitis, with necrosis, at times, of the bronchi and of the arytenoid and thyroid cartilages. In places the process may, however, stop before extending into the bronchioles and the person entirely recover. Or it may go on, and, indeed, too frequently does go on farther, producing a bronchioletitis which often is suppurative with extension of the process into the lung substance. Professor Mac-

Cullum has worked out the mode of spread of this infection very beautifully in a series of cases which he studied. Most of them, however, were post-measles pneumonias. His excellent paper appears in the Journal of the American Medical Association a few weeks back and every one interested in a scientific pathologic study of the trouble should read Dr. MacCallum's article.

The infection, then, apparently extends out through the bronchial walls. These become attacked and infiltrated with lymphocytes following which the infection spreads peripherally into the lung substance so that a number of nodules, simulating, to some extent at least, tubercles, develop in the lung. These usually spread, attaining a size as great as one centimeter in diameter. The lungs are studied with these nodules (and, by the way, the infection extends through the lymphatics to a great extent). The nodules then become confluent in some cases, producing what Major Miller always insists on calling a clinical lobar pneumonia, which is not a true lobar pneumonia, but bronchial pneumonia, in which most of the lung substance between the nodules has also become involved. The area involved, as a rule, is not so firm and does not contain the plugs of fibrin which one sees in the ordinary old-fashioned pneumonia due to the pneumococcus. In other cases these nodules occur in patches and one has a true lobular pneumonia which is also due to the streptococcus. In some other cases that we have had, the streptococcus infection followed a true pneumococcus pneumonia. More than likely the superimposed streptococcus infection originates in the lungs though it may come by way of the blood, because in some camps it has been found that practically all of these cases have positive blood cultures at certain stages. Perhaps the secondary infection may come by both routes. But it appears to me that it usually extends through the lungs into the pleuræ where it produces these notorious empyemas which you have heard so much about.

The empyemata formed are often very peculiar, differing greatly from empyemata usually seen. The fluid rarely fills the entire pleural cavity, but at times a large amount is present. Sometimes the fluid is thin and but slightly cloudy due to the presence of but few leukocytes. The most striking feature is the marked tendency toward encapsulation, often forming a number of pockets. These are made by the deposits of fibrin. Sometimes the fibrin formation is tremendous! I have seen case after case where the deposits on the parietal pleura have been over a centimeter thick. This fibrin, then, seals off the fluid-seeping areas, forming encapsulating empyemas

which are found in the most unlooked-for places. For instance, I have occasionally found an apical empyema, where the clinician never thought of looking for it—right up at the apex, encapsulated so as to cover half of the upper lobe. Again I have found various pockets, some smaller, some larger, under the sternum, in the mediastinum, and especially between the lobes, and more particularly between the lower lobe and the diaphragm. So, as Major Miller told you yesterday, it is impossible to institute adequate drainage because nobody can find all these pockets. They are frequently bilateral. Just how this happens nobody knows—perhaps the infection goes through the blood stream, perhaps through the lymphatics. So then, the most frequent complications are—empyemata.

The next complication in order of frequency is pericarditis. Of this there are many varieties, from cases in which only a few floccules of fibrin are present with a slight increase of the fluid, to cases in which the sac is distended with a thick, greenish pus. For instance, I have brought with me a slide showing a case in which there was over a liter and a half of pus with a huge amount of fibrin.

Before leaving the complications in the thoracic cavity, I may tell you that we have had several cases in which the mediastinum has been absolutely filled with purulent material. Sometimes one finds localized pockets of pus between the esophagus and the trachea, and in two cases at least death was due to pressure on the heart.

The next most frequent complication is an inflammation of the peritoneum. This has occurred in ten of our cases. How the inflammation gets there I do not know—probably in various ways. But when we do have a peritonitis it is generalized and there does not seem to be so much fibrin formed there as there is in the thorax, yet sometimes the intestines are covered with a fairly thick layer of fibrinous exudate.

Other complications than those enumerated are very few. There were two cases of phlegmon of the legs or arms, and one or two cases of multiple arthritis, but that is about all. It would seem that this infection is limited so far as its morbid anatomy is concerned, largely to the lungs, and less frequently, to the serous cavities.

#### Discussion

**Major E. T. Edgerly, M.R.C., Ottumwa**—I feel as though my ground had been taken from under me because when this program was arranged the subject of Major Glomset's paper was, "Control of infectious diseases in the Army." Now that this epidemic has struck us, you might expect us to show "how we do not control infectious diseases in the

Army." I was put on the program because connected with the contagious wards at Camp Dodge, and I would have been glad to give a few facts about that subject. As has been stated, we have had an experience contrary to the experience reported in the other camps—a relatively small number of cases of post-measles pneumonia. However, I think we are coming to it because I left six cases transferred to an isolation ward from the regular measles ward. I would say that from a clinical standpoint most of them seem to be of a bronchio-pneumonic type. But, as the Major has said, they appear to be confluent, sufficiently to give the clinical signs of a lobar pneumonia. I may say that we appreciate greatly, although we have learned to dread this disease, the benefit we derive from a study of the pathological changes under the supervision of Major Glomset. One who has seen these bodies opened on the table feels that he certainly knows that "war is hell" if this is a part of it. To see these young strong fellows drop out in three or four days from sickness is very distressing, but the opportunity to note the conditions present in the thorax and peritoneum, full of thick, fibrinous fluid, is a comfort in that the clinician can then see that any treatment he might have instituted could have been of no avail. In the scarlet fever cases we have had, there have been only one or two pneumonias. We have, I believe, had none in other of the contagious diseases, so I have had not great personal contact with pneumonias except as I have had to supervise other medical wards. We have all the contagious diseases with us. I cannot give you the figures because not prepared to do so, but just now we have about thirty diphtheria cases, some ten erysipelas cases, 100 to 125 scarlet fever cases, and six to eight meningitis cases; we have had a few cases of chickenpox, one case of whooping-cough; we have had no typhoid, although I believe that in September Major Glomset reported two.

**Major Glomset**—Yes, both of whom developed the disease before they were vaccinated.

**Dr. Edgerly**—We found that men in the September draft had pneumonia as well as men in the February draft. We had no smallpox except with those who brought it with them. We now have no smallpox, showing the efficiency of protective measures. I do not think we have had over thirty meningitis cases. Our results at first were not satisfactory among the colored troops. In my first case, a young athlete and university football player, we gave serum and saved him. Later we saved some others. We have just transferred to the medical ward five white men cured, although one had scarlet fever, one erysipelas, etc. We have one colored man now who came in dull, showing the usual symptoms, and he is now convalescent. It was impossible to get the Rockefeller serum, but at any rate we used the best we could get and used it liberally intravenously, giving 100 c.c. in twenty-four hours. We have combined it with intraspinal treatment, but I think we will go less and less to the intraspinal treatment. Intraspinal we have used 10 to 15 c.c. less of the serum

than the fluid withdrawn. We often make as high as eight to twelve punctures in a case. Diphtheria has been almost entirely controlled by the serum antitoxin. We usually give 15,000 units at the start, and have given as high as 75,000 to 85,000 units. Scarlet fever has not been serious with us, it has been very mild, but it has become more serious recently. We have had a great deal of otitis media and quite a little adenitis, but none in my service at least have gone on to a degree that they required an incision. We have had no nephritis, occasionally a trace of albumin. Erysipelas is rather common with us, probably due to the fact that it is of streptococcic origin. We had one case transferred from the measles ward to the scarlet fever ward because he had scarlet fever, where he developed erysipelas and multiple abscesses in various parts of the body, one about the elbow-joint and one in the right knee. The trouble in the knee subsided under aspiration, made simply for diagnostic purposes, from which we obtained the streptococcus, and he is now walking about the wards. We have a number of cross infections, but they rarely occur in the isolation wards. In most instances the usual period of incubation of the second disease indicated the soldier could have been exposed prior to admission to the hospital. Masking of patients at the regimental infirmaries and wearing of masks until the ward is reached is the practice. Beds of patients are under the cubicle system, that is, separated by sheets hung on wires. Patients able to leave their beds are required to wear masks when outside the cubicle. Companies or wards in which a case of diphtheria or meningitis is discovered are cultured and carriers are isolated until three negative reports are received.

**Dr. Henry Albert, Iowa City**—It is indeed fortunate that our Army Medical Department is so organized that men of such ability as Major Glomset and Major Miller are selected to take charge of the work in connection with the various camp hospitals. The opportunity which the military physicians have of advancing our knowledge is very fine, especially with reference to the various infectious diseases, both because of the fact that a number of these conditions occur very much more frequently in military than in civil life, and also because the physicians in charge have a much greater opportunity to control the various factors which it may be necessary to control in order to find out the efficacy of various preventive and curative procedures. And when we have the ability of such men as those stationed at Camp Dodge employed in making these studies it is indeed a fortunate thing for science. It means valuable contributions to our knowledge of medicine. Those of us who remain in civil life ought to keep ourselves well informed by the reading of medical journals as to the work done in military life. The question of streptococcic infections is very interesting. In recent years we have heard a great deal about the streptococci, and, as Major Glomset has said, although we know of the different strains of streptococci, at the present time, aside from the classification of these

organisms into the viridans and hemolytic types, we do not have any very good classification. Nevertheless, in spite of this, we have evidence, largely of a clinical nature, that certain strains of streptococci have a certain selective action. It seems to me that in the condition which Major Glomset has so ably described to us the streptococci have chosen to pick out the respiratory system and especially the lower portion of that system. The streptococcic types of pneumonia are now appearing also in civil life. Dr. Howard can tell you of some cases that have appeared in the University Hospital which were found to be caused by hemolytic streptococci. I was very much interested in the reference which Major Glomset made to the relationship of these cases to streptococcic sore throat, which condition has been recognized now for a number of years. Those cases of sore throat have been transmitted principally by means of food, and, more particularly, by milk. However, Major Glomset states that an epidemiological investigation of the condition under discussion would tend to show that the infection was not transmitted by food; nor does the clinical evidence favor that idea. So in these cases it is obvious that infection occurs largely through the air. Face masks, which have been rather extensively used in a number of camps during recent months, should, it seems to me, also be employed in caring for these cases in civil life. The wearing of a face mask to prevent the spread of the organisms responsible for this infection seems to be a very important measure in the control of infectious diseases of the respiratory system.

**Dr. Eli Grimes, Des Moines**—In this discussion relative to streptococcic diseases in military life, I fear some here will think that we do not see them in private practice. Just now we are in Des Moines passing through an epidemic of streptococcic sore throat, but up to recently there have been very few cases of pneumonia. For several weeks throat infections were prevalent, then one day something struck the people, as it were, and they began to develop pneumonia, and within three or four days there developed in my own private practice twenty-one cases of streptococcic pneumonia, followed in a few days by six fatalities. So this is not a strictly military disease. The people of Des Moines did not at first realize the seriousness of the streptococcic epidemic we were having. The one question particularly concerning the etiology of the pneumonia is why we had this streptococcic infection so long with little or no pneumonia, and then all of a sudden the pneumonic form should develop. There must be some common cause that affected many people at the same time without actual contact. Of course, in general work we do not have opportunity to make the close scientific study that is possible to be made in a military hospital. The best we can do is to make the diagnosis, perhaps from the symptoms alone. I remember that at many medical meetings if it was desired to get a discussion started, the treatment of pneumonia was introduced. When I see a case of

streptococcic pneumonia I want to get away for I feel that the prophylactic and medical treatment are still ineffectual.

**Dr. C. P. Howard, Iowa City**—I do not want to prolong the discussion but this is such an important paper that I feel that everything that anybody has to say on the subject might be of interest if not of importance. As Dr. Albert has said, we have found that this disease is quite prevalent in Iowa City. Dr. Grimes has told you that it appeared in Des Moines about the same time as in Iowa City. We have 2000 students, apparently living under good hygienic conditions, but who now for a number of months have been running the gamut of severe infectious disease, including scarlet fever, German measles, chicken-pox, smallpox and mumps; and then suddenly on April 1, appeared this epidemic. Some twelve or fifteen cases developed in the student body; and here and there farmers in the neighborhood are giving the usual history of two or three days of grippe, returning to work and then, after twenty-four hours, being seized with a chill and pain in the side. This pain is of the most marked and boring kind in my clinical experience. The patients complain bitterly of the severity of the pain out of all proportion to that of the ordinary pneumonia or the usual form of fibrinous pleurisy. Also in most cases they develop high fever  $105^{\circ}$  and sometimes  $106^{\circ}$ , with very marked cyanosis and pronounced toxemia and high pulse; and some of the cases in two or three days are dead. As far as physical signs are concerned, we have found that in a number of cases they are bilateral. When, in the first case I saw I noticed one side strapped, and then noted signs of the trouble on the other side, I thought the interne had made a mistake and strapped the wrong side. The mistake, however, was one of my own inexperience in this type of infection for there was pneumonia on both sides. We have been very much struck by the bilateral nature of the malady and the tendency to form empyema. We have aspirated these cases as a routine even when the signs were typically those of consolidation, because, as Dr. Rohner, of my clinical staff said to me about the second or third case he had seen in consultation—"The signs of consolidation were there, but remembering that in the cases in which we have seen these signs we put in the needle and got pus, I did so and sure enough found pus." We are not dealing here with a pneumonia which makes pus during its progress, it is a pneumonia which in most cases has associated pus practically from the first stages of the disease; if not pus immediately, then serous fluid loaded with streptococci. In only one of our fifteen cases has the serum been sterile at first; there then appeared chains of streptococci, and finally the serum became purulent. As far as the sputum is concerned, it is usually the characteristic sputum of pneumonia, rusty in color. We have isolated the prevailing organisms of several cases and in only two cases have the streptococci overgrown the pneumococcus; but in every case

coming to the operating room or to post-mortem the streptococcus haemolyticus have been isolated from the purulent fluid showing that it is a double infection. Another curious fact is that the disease so far is extremely fatal, and even after operation we have had deaths and that in spite of the most thorough establishment of drainage. One thing that has struck me as an internist is the absence of adhesions in the pleural cavity in the cases operated on early. Following the operation of thoractomy the patient is very much shocked, and one is in a quandary as to when to operate. I believe that the advice by experts is to defer operation for a day or two, not to be in a hurry, that unless there is a mechanical displacement of the heart it is best to defer operation for two or three days. But even then there may be marked shock following, if not immediately in the course of twenty-four hours, and the patient dies. That the infection is a general one I feel sure. A young lad of twenty-one who was admitted with temperature of  $106^{\circ}$ , on the first of his illness revealed in the blood culture hemolytic streptococci in great numbers. He then developed an acute polyarthritis, from which the streptococcus was also isolated, he next developed pericarditis; and lastly a purulent pleural effusion, showing at least in that case that the condition is a blood infection. I really feel, therefore, that these streptococcic pneumonias are septicemias, and that but very few of them must be considered as the direct result of extension from the upper respiratory tract, as has been suggested by one of the speakers.

**Dr. G. W. Koch, Sioux City**—In Sioux City and in the small towns adjacent thereto we have had during the past winter quite extensive epidemics of scarlet fever and measles, and many other diseases of infectious origin. And on top of this, in the month of April and since, a number of cases of streptococcic pneumonia developed throughout the small towns and in Sioux City. Many of these cases I have personally seen. All the complications that have been described by Major Miller, Dr. Howard and Major Glomset have been seen. So that this condition is not alone one of the concentration camps, as we see it in civil practice as well as in military practice, and we see almost as many cases.

**Major Glomset**—I have very little to say except that I would like to emphasize what Dr. Howard has said, that it pays to aspirate. Only wont you please remember when you go out in civil life to aspirate in the lower part of the thorax? And if you can, also please remember that the diaphragm is just below the thorax and that just below the diaphragm is the peritoneal cavity.

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## FRACTURES COMPLICATING THE ANKLE JOINT\*

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The ankle joint may be involved through fractures of any of the bones entering into its formation, namely, the tibia and fibula above, and the astragalus below. From the standpoint of frequency of bad results, ankle joint fractures are second only to those following fractures at the wrist joint.

The astragalus is supported from below by the anterior portion of the superior surface of the

Since the advent of the x-ray, many injuries of the ankle joint formerly thought to be simple sprains, are now known to be fractures of one or more of the bones. Not infrequently the skia-gram shows chips of detached bone or slivers, sometime fissures with little or no displacement and are known as fracture-sprains. Many cases of this nature have been treated with disastrous results as simple sprains, and without the aid of the x-ray might easily escape detection. A sprain indicates that the normal relations of an articulation have temporarily suffered displace-



FIGURE 1. Showing bony relations of ankle joint. Note sharp angle of upper external border of astragalus.

calcaneum (os calcis), and fits as a tenon into the mortise formed by the tibia and fibula above. The outer aspect of the mortise, the external malleolus, formed by the lower end of the fibula, extends downward to the lower external border of the astragalus, while the internal malleolus ends midway between the upper and lower internal border. The astragalus is slightly trochlear-shaped from side to side and there is a corresponding ridge on the tibia which conforms to this surface. In the six weeks old foetus, the astragalus sends a process upward from its upper external border which passes between the tibia and fibula as is observed in some of the marsupials. This border persists as a rather sharp edge in the adult and plays an important part in the production Pott's fracture.



FIGURE 2. Fracture sprain, boy age eighteen. The internal malleolus fractured at base. No other bone lesion. Diagnosed and treated as a sprain until x-ray demonstrated the error.

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ment always with more or less tearing and stretching of its supporting ligaments.

In the case of a sprain of the ankle joint, the tibio-fibular interosseous ligament and internal lateral ligament may all give way before the force is arrested. The radiograph often shows a fracture of the tip of the internal malleolus as the only bone involvement complicating a sprain, having been pulled off through eversion or twisting of the foot.

The history of the injury is important. A sharp blow upon the ankle region frequently fractures the bones above without involving the joint proper. Fractures involving the ankle occur more often however, as the result of a fall or jumping from a height with the superimposed weight of the body being forced upon the foot. The position of the foot and extremity immediately preceding the injury usually designates the nature of the fracture. If the leg is abducted and the body weight falls upon the inner border of the foot, an eversion or Pott's fracture is the result. Since this is the position usually acquired by the extremity in a fall or jump, eversion fracture is the one most frequently found. If the force be exerted while the extremity is greatly extended forward or backward, a fracture of the bones above with dislocation of the foot backward or forward may result. A considerable amount of discussion has been given to the manner in which Pott's fracture is produced. In these injuries the lower extremity of the fibula is always fractured and the internal malleolus may also be broken off. My study of radiographs in various x-ray laboratories together with the histories of cases occurring in my own practice, have lead me to the following conclusion:

1. That twisting of the astragalus in the mortise is one of the most potent factors in fracturing the lower end of the fibula.
2. That fracture of the internal malleolus or rupture of the internal lateral ligament is the support always first to give way.
3. As the vulnerating force is continued outward against the external malleolus, the wedge-like upper and outer border of the astragalus is forced upward between the tibia and fibula, the interosseous and tibio-fibular ligaments give way and the fibula fractures at its weakest point, usually about an inch above the joint. Should the interosseous ligament hold, the fibula may fracture on a line with the joint, or obliquely upward beginning at the joint. Very frequently the fracture is spiral or oblique from before backward evidently being due to the twisting movement of the foot while the other forces are operating. Pott's fracture is always an eversion abduction fracture, it is

never a fracture by inversion or adduction of the foot. Oftentimes one observes complications such as chipping off of a portion of the outer

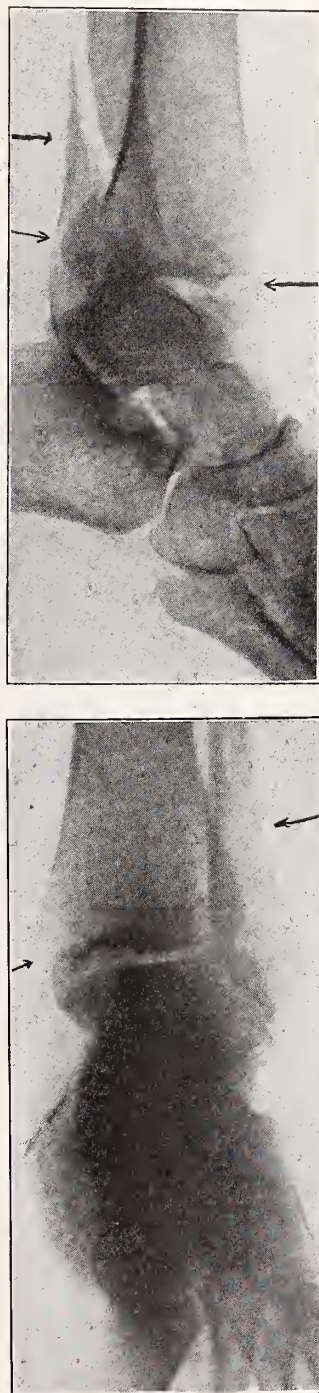


FIGURE 3. Pott's fracture, typical. Internal malleolus fractured and displaced outward and downward. Fibula fractured obliquely. Outer aspect lower articular surface tibia chipped off and fragment misplaced upward. Case of Dr. C. M. Post.

articular border of the tibia or a fissure into the shaft. After the accident the foot remains more or less everted.

When the body weight is forcibly thrown upon the foot while in the inverted and adducted position, the fibula is seldom fractured above the level of the tibio-astragalus joint. The internal

malleolus breaks at its base or carries with it a considerable portion of the inner aspect of the shaft of the tibia. The foot remains inverted after the accident. This is not a Pott's fracture and it should never receive the treatment of a Pott's fracture.

The various definitions of Pott's fracture as given in many of the leading text-books and systems of surgery are grossly misleading; for instance, one defines it as "a fracture in the lower end of the fibula;" another, "the lower fifth of

union of the interosseous ligament may take place, spreading at this juncture will follow when the patient resumes the use of the limb.

Here again the sharp angle of the outer and upper border of the astragalus is brought into prominence as a further harmful factor.

In either form of ankle fracture, the foot must be well flexed upon the leg; this is necessary in order to overcome the pull of the gastrocnemius muscle through the tendo-achilis which draws the foot backward and extends it upon the leg in front.

In a typical Pott's, with the fracture of the fibula well above the joint and the astragalus and foot forced bodily outward, there need be no fear of overdoing the inversion maneuver in attempting to correct the deformity, as the external malleolus can go no further inward than that of its normal relations with the lower external border of the tibia which effectually prevents the foot from going too far inward. Uncomplicated Pott's fracture usually is easily reduced. If the skiagram shows overlapping of the tibial fragments, their reduction may be made easier by increasing the eversion at the same time making extension on the foot while the thumbs are thrust against the fragments as the foot is pulled downward and over toward the inside. The ordinary fracture box, in my opinion, has no place in the treatment of a Pott's fracture. The Dupuytren's splint or the postero-external plaster splint of Simpson, or as I prefer a circular plaster cast, split as soon as it is set should be applied immediately after reduction is effected. After the swelling is reduced, a circular plaster bandage is the ideal dressing. The cast should be worn five or six weeks. No weight should be borne upon the injured extremity for five or six weeks longer time, otherwise the ligaments may gradually give way and deformity result. At first it may not be noticeable, but after a few weeks or months the patient is walking upon the inner border of the foot and internal malleolus.

In rare cases when both malleoli are fractured on a level with the joint, the fragments are oftentimes maintained with great difficulty, and in order to secure them in place, nailing or other operative measures may become necessary. The subcutaneous extra-articular method of nailing as practiced by the late Dr. Murphy is indicated here; the joint should never be invaded if it is possible to avoid it. A small incision is made over the detached malleolus down to the bone; the fragment is adjusted to its proper relations with the shaft and a hole drilled through it and into the shaft and secured with a wire nail. The procedure is repeated on the opposite side and the



FIGURE 4. Pott's fracture. Tibia dislocated forward, the posterior border rests in the notch of the astragalus. Case of Dr. R. R. Morden.

the fibula;" and in still another recent system the author states that "all fractures of the lower end of the tibia and fibula are given the name of Pott's fracture." The most appalling deformities have followed fractures into the ankle joint as a consequence of failure to recognize and interpret the relations which the fragments bear to the position of the foot following the accident, and in dressing the injury with the foot at an improper angle with the leg. A fracture by eversion and abduction must be dressed with the foot in the extreme over-corrected inverted adducted position, while an inversion fracture should always be dressed in the reverse order, namely, with the sole of the foot directed somewhat outward. Dressing the foot on a plumb line with the tibial shaft is never sufficient, for unless the normal relations between the lower ends of the fibula and tibia have been effected so that a firm re-

skin incisions are closed with a single suture in each. The nails do not enter the joint at all, neither is the joint exposed during the operation. Should it become necessary however, fragments may be secured by nails or screws driven directly through articular surfaces without in any manner interfering with the function of the joint, afterward provided the head is counter sunk below the level of the cartilage. Since dowel making has become perfected, bone pegs in selected cases may be used instead of nails.

Should a fracture be compound the problem of joint infection must be met. Infection still retains first rank among all the combative units with which the surgeon has to deal in joint surgery. So long as infection is kept out, the articular surfaces may suffer the severest indignities without impairing the joint functions after recovery. There are few more horrible deformities than those of the ankylosed ankle following fracture with infection and the foot completely out of plumb with the tibial shaft, the result of improper early treatment.

Unless one is prepared to carry out the most exacting technic, bone and joint surgery should not be undertaken. The resistance of bone, car-

used in the wound again until after it has been re-sterilized. The integument surrounding the operative field is completely covered by towels which are firmly held to the edges of the incision by means of clips.

The repair of ancient ankle joint fractures presents some of the most difficult problems with which the surgeon has to contend. Fragments are united in malposition; there is excessive callous formation, newly formed fibroplastic tissue holds the dislocated joint firmly, or finally one

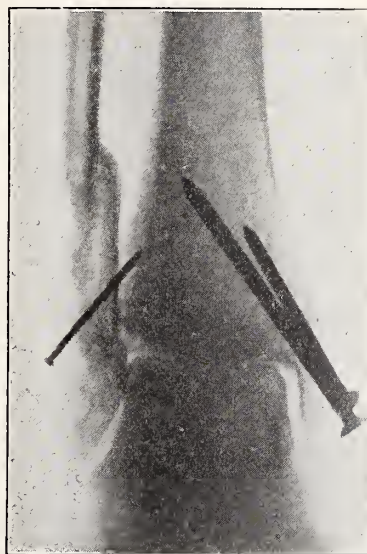


FIGURE 6. Fibula refractured obliquely upward and outward beginning at the articulation. Fibrous tissue removed from between internal malleolus and shaft and nails inserted. Note how the external malleolus has been brought over to its normal position and still is contacting with the shaft of the fibula.



FIGURE 5. Old Pott's fracture, eight months standing. Firm union of fibula in malposition. Internal malleolus detached and displaced downward and outward, fibrous union with tibia. Note the extent of eversion and abduction of the foot.

tilage, and synovial membrane to infection is incomparably below that of any other region invaded by surgery. All instruments should be arranged in the tray before being sterilized, then brought to the table from which they are taken by the surgeon as needed during the operation. Sponging is done by assistants by means of forceps, and no instrument that has accidentally touched the hands of the operator or assistants is

may have to deal with complete bony ankylosis, the cartilage having been more or less completely destroyed. Reconstructive work not only necessitates exposure of the joint, but the articular surfaces are often subjected to much traumatism. The forces necessary to overcome the deformity and bring the foot to an over corrected position will often endanger the circulation of part or the whole of the foot.

The following case not only represents a classic Pott's fracture, but shows beautifully the deformity resulting from the union of bony fragments in malposition, and the permanent eversion and abduction of the foot. The patient, a boy eighteen years old, was thrown from a vehicle and sustained a fracture of the fibula one and one-half inches above the ankle joint. The internal malleolus was fractured at its base. He stated that immediately after the accident he was unable to bear any weight upon the injured leg and that the foot turned out. A doctor was called, the fracture set, and the leg was dressed on an internal splint, and afterward a plaster cast was applied. When the cast was removed at the end of three

weeks, the foot still turned out and an effort was made to overcome this tendency by the application of a new cast. When the patient finally began to walk, the deformity gradually increased, and at the time he came under my observation, eight months after the accident, the internal malleolus almost touched the ground. The skiagram (figure 5) showed that the fibula had united firmly but the fragments were overlapped fully half an inch. The internal malleolus was displaced downward and outward and it was impossible to bring



FIGURE 7. Same as Figure 6. Side view.

the foot into line with the shaft of the tibia. Flexion and extension of the foot were restricted to about one-half the normal range. Operation was undertaken to correct the deformity. The external malleolus was exposed through a longitudinal incision extending from its tip to the original fracture above. With a thin chisel the bone was divided obliquely from the joint upward and outward, in order that the lower fragment might slide upon the upper and still remain in contact after the foot had been brought into normal alignment with the leg. The wound was then covered with gauze and the internal malleolus exposed through a similar incision on the inner aspect of the ankle. The fibrous tissue which constituted the union between the fragment and the main bone was removed, which left a free space of one-quarter inch in width between them. The foot was then forcibly brought over inward, and the inner malleolus was found to fit snugly and perfectly the surface prepared for it. Holes were then drilled through the malleolus extending into the tibial shaft and two eight penny wire nails inserted and driven in at slightly different

angles. The freshly divided external malleolus required a small finishing nail to hold it in position. Horsehair was used in closing the skin wound. A plaster cast was applied at once over the dressings and the foot brought over to a slightly\* inverted adducted position. The sutures were removed at the end of two weeks and a new cast applied which remained in place for five weeks, at which time the nails were removed. There was no infection and the nails created no irritation, but since nails in this situation are easily removed through a nick in the skin, there is no good reason for leaving them in permanently. Eight weeks after the operation, active motion was begun once or twice daily, care having been taken not to produce pain. Too early and too energetic manipulations of the joint after injury or operation cannot be too vigorously condemned. Such attempts to break up adhesions at one time, opens the newly formed blood-vessels and causes fresh hemorrhages into the surrounding tissues and in turn, new embryonic tissues are formed, finally becoming organized into fibrous tissue and locking the joint more or less completely. At the end of four months the patient walked with-



FIGURE 8. Nails removed. The alignment of the foot with the leg practically normal.

out aid, the alignment and position of the foot were well nigh perfect, and the range of motion at this time was practically normal.

Points in Pott's fracture to be born in mind:

1. Pott's fractures is always an eversion and abduction fracture.
2. The fibula is always fractured and usually within an inch and one-half of the joint.

3. The tibio-fibular and interosseous ligaments are always ruptured permitting more or less complete separation of the lower fragment of the fibula from the tibia.

4. These three points create the key to the successful treatment of all Pott's fractures; namely, that of placing the lower fragment of the fibula into its normal position and holding it there until healing is complete. This can only be done by placing the foot in the most exaggerated adducted and inverted position and keeping it in that position until the healing process is fully attained.

5. An inversion fracture is never a Pott's fracture, and the foot should never be dressed in the adducted inverted position, but always requires the reverse position, that of abduction and eversion. In all cases the foot should be maintained well flexed upon the leg.

6. The joint should not be exercised under eight weeks time and no weight should be borne upon the foot for a three or four weeks longer period.

#### Discussion

**Dr. L. W. Littig, Iowa City**—I believe that all of us agree with most of the statements made in this very excellent paper. That the fracture-box, however, is entirely without value, is open to question. I think it can be made a good splint and that it may bridge over a short period. A pillow properly wrapped about the foot may also serve a useful purpose until it is possible to apply a plaster cast, as suggested by the essayist. I want to make a statement just as emphatically as I can—a statement that I think you have all heard many times before, the emphasis being due to a recent experience of my own. That statement is that every injury about the ankle-joint should be x-rayed. Several weeks ago I treated an old and dear friend of mine for what I supposed was a very severe sprain of the ankle-joint. The patient was walking along the street one day limping slightly, when she met a doctor whose standing and training made him above suspicion as to what followed. He suggested that she permit him to take an x-ray of this ankle-joint, and the picture was taken. A few hours later, I was sent for by the patient, who told me, with tears in her eyes, that she thought she would have to get another doctor, and she could not tell me how very, very sorry she felt about that, adding, "Don't worry. Doctor, I won't tell anybody about this." I said, "I will!" I called up the radiographer and asked, "How much separation was there?" He replied, "There was no separation." "How much of a fracture?" "There was just a slight fissure at the tip of the malleolus extending into the bone about a quarter of an inch, but absolutely no separation." The roentgenologist added that there was no fracture at all, and that the treatment for sprain was perfectly proper. To protect yourself, even when it appears unnecessary, it is bet-

ter to have an x-ray taken, for your own benefit, and also for the benefit of the medicolegal fund of the State Medical Society. In regard to compound fractures: You need not be told that soap and water should not be used in cleaning up a compound fracture. Tincture of iodine is the only substance that should come in contact with the surface surrounding the wound. You may pour tincture of iodine into the wound if you please and sponge it out, although Reclus tells us that it is not necessary to sponge it out, just pour it in and leave it. But I prefer to swab it out slightly. Benzoin may be used about the wound, although it is not necessary to go to that much trouble; but do not use water about the wound.

Just one word about the compound fractures that occur in the street. Where infection may be due to street dirt I think it is essential that these cases be treated with a prophylactic dose of antitetanic serum. Two or three years ago I was called on the telephone by a doctor who told me that he had a case of compound Potts' fracture which occurred as the result of falling down a cellar stairs. I said to him, "Give that patient a dose of antitetanic serum." The patient died of tetanus in spite of the serum. In regard to the use of the member after fracture: When shall weight-bearing be permitted? Not inside of eight or ten weeks. What the Doctor said about over-correction is absolutely true—inversion and abduction; everything seems in good position, and in two or three months there is a deformity with which you are all familiar. As a remedy for this, I should suggest the insertion of an arch support as a very good procedure.

**Dr. J. E. Brinkman, Waterloo**—In dealing with fractures there are times when we have to choose the lesser of two evils. I now have a case under treatment in which I believe it is absolutely necessary for me to disregard for the time at least the condition of the fibula. I have a fracture of the internal malleolus, a comminuted fracture of the external malleolus with a badly comminuted fracture of the fibula about three inches above with the foot dislocated outward. It does not seem as if there was anything for me to do but to attempt to restore the weight-bearing powers of that joint as nearly in perfect position as I can and disregard the small bone. I know of absolutely no way of holding it, and I am not attempting to do anything special to hold it. I am trying to get the fracture of the internal malleolus back into position so that the normal contour of the joint will remain, then reducing my dislocation. And I would ask the essayist if he has used the molded splint. In most cases the foot is swollen quite badly, there is considerable reaction, and if you put on your circular plaster of Paris cast it is not very long until it becomes too loose and it is considerable of a job to cut it off. But by taking strips of plaster of the proper length and laying them on top of each other until you get the required thickness, then dipping them into a salt solution, you can proceed to make a molded splint. Put them around the ankle with the foot in an inverted position, then

let them come up the side of the leg with sufficient cotton underneath as a pad and then over that, while still wet, put an ordinary bandage. It is not a difficult matter to hold it for the ten or fifteen minutes required for it to set, it adapts itself perfectly and evenly and fits like a set of false teeth. After a time, in case you wish to give massage, all you have to do is simply to slit the gauze bandage which covers the splint and you are right down on the job. As soon as the swelling goes down it is a very easy matter to spring this dressing off and put on another. Such a splint is light and comfortable and I believe it is effective in holding the parts in position. But in the specific case referred to I wish to ask the essayist if I would be expected under existing conditions to do anything to restore the fibula to its normal position, or if I would be justified in disregarding the position of the fibula. The bone is so badly comminuted that I am at present disregarding it and paying practically all my attention to the weight-bearing surface of the joint.

**Dr. Walter Scott, Adel**—I want to report a case that was rather peculiar in my experience. A young married woman was sitting in a buggy in front of a store when the team became frightened, the tongue of the vehicle dropped down and slid along the pavement until it run into the ground, throwing her about fifteen feet in the air and she dropped to the ground rather suddenly. The result of the accident was that she sustained complete fracture at about the lower third of both the fibula and tibia, and was otherwise injured. I was called, and after treating her for shock I brought her to the hospital and reduced the fracture, put on a cast and before it was entirely set slit it up. That evening we secured a specimen of the urine and found that it was loaded with albumin. The woman was seven months pregnant, and we were somewhat worried about the condition of the patient on account of the albumin being present. But in succeeding specimens no albumin was found. The next day the babe was prematurely born. The patient remained in the hospital for about four weeks. The peculiarity of the case was this: There was absolutely no pain at the site of the fracture, no swelling, no formation of callus, and there was absolutely no union for a considerable length of time. The past history of the patient showed that some ten years previous she had had nephritis following scarlet fever, and the question arises as to whether the non-union was due to the pregnancy or to the nephritis which she had had in the past. I cannot answer the question, perhaps the essayist can do it for me. I sent the patient home at the end of four weeks with a plaster of Paris cast on and walking on crutches, and after a considerable length of time callus formation took place and finally there was good union. That pregnancy is a cause of non-union of bone is well known and it is altogether likely that in case the pregnancy had not terminated as a result of the accident non-union would have persisted a much longer time.

**Dr. T. M. Throckmorton, Chariton**—I have seen these pictures and listened to the addresses here to-night with great interest and I can only say that had I known of such things early in my career, I would have saved myself a good deal of grief. Samuel D. Gross had his fracture boxes and tin splints made to fit the various kinds of fractures and I well recall, as a student, his clinical lectures on their uses. Well, after I graduated I had a fracture box and tin splints made similar to the ones used by Gross and for ten or twelve years these answered the purpose very nicely, but with it all they were never entirely satisfactory and I never rested easy until my fracture cases were walking about and I had succeeded in getting a little money for my services. Now since the x-ray was invented it has been the fashion for everybody to obtain one—not everybody exactly, but some, just the same as you see reported in the papers that Dr. So-and-So has a new automobile. Now, the automobile is very useful and the x-ray is very useful, but the latter is a very dangerous agent in a community where some physician has an x-ray outfit and you have been treating cases of fracture for ten or twelve years, especially when the physician induces one of your patients to come in his office for a picture and then shows him any existing deformity. The result is that you may have trouble with a case treated years ago. Again, the x-ray in some instances, is a sham. You can see the shadow cast of a bone, but the shadow cast and the real condition may not be the same at all. The shadow may greatly distort the true anatomical relations. Therefore the x-ray is a bad thing for the man who has not one at his disposal and his neighbor or somebody else has. But it is a most excellent thing, too. I have had some fractures in which I used the x-ray in time and treated the condition accordingly, with perfect results, but in one case I was afraid to show the parents of the patient the x-ray plate because if they saw it I knew I would not receive any pay. But after six months time the patient could run just as fast as ever, he had a good leg, just as good apparently as the other, and could not from the function tell which one had been fractured. But if some fellow had gotten hold of that patient and showed him a picture of that leg before I got my pay I would not have received any remuneration. If I could have heard this talk and seen these plates years ago, and had the advantage of such knowledge, I would have been a great deal better Doctor and I would not have had so much worry and my hair would not have been quite so gray. I am glad that the profession has such advantages now, and the time will come when we will have more inventions and improved methods than at present. The man who cannot become a good all-around doctor today certainly has no natural ability. If he will attend the medical society meetings, if he does not talk every time something comes up, but just listen and keep his mouth shut and his ears and eyes open, he will go home a wiser man. I am glad that I have had the privilege of

hearing these lectures and of seeing these demonstrations.

**Dr. Joseph H. Schrup**, Dubuque—The bone papers and demonstrations of this session call to my mind that I was always very greatly interested in the late departed Dr. J. B. Murphy's work along this line, and that oftentimes while reading his clinics I have come to the conclusion that it would take twenty years for all of his valuable ideas therein to become crystalized. With regard to Dr. Stoner's demonstration, if you will look in Murphy's Clinics you will find in some little corner that most all of this work has been described in some degree, illustrating the immense amount of material the famous clinician had and from which he was able to draw his conclusions. A great deal of his work has served as a sort of a voice in the wilderness; and, except in the case of those who have been with him a great deal and have been particularly interested in his problems, so that the results of his teachings have soaked in, I do not believe it has up to the present time made a sufficient impression on the profession. Dr. Stoner's work, as shown by his demonstrations here tonight, shows how Dr. Murphy's work is becoming crystalized and indicates that without doubt in the next twenty years many other of Murphy's exploited new principles will gradually become universally appropriated with great profit.

**Dr. Stoner**—As a number of lantern slides in addition to the regular program are to be shown this evening, with one exception I will not discuss the subject further. It is with reference to the kind of splints to be used for these fractures. I do not think it makes a great deal of difference what kind of splint is used provided it secures the foot in its proper position, that is, adducted and inverted for Potts' fracture and in the reverse position for an inversion fracture. Where both malleoli are fractured on a level with the joint, the foot is best dressed on a line with the tibial shaft.

## PLASTIC SURGERY OF THE PERIPHERAL NERVES\*

J. A. DALES, M.D., Sioux City

On account of limited experience, as a civilian, this paper must be of an academic nature and practically a compilation of the experience of other surgeons and research workers.

The present war has furnished wounds of every variety and "plastic surgery of the nerves" comes in with its quota.

Just a word as to the structure and function of nerves. The essential parts of a peripheral nerve are the central nerve cell, or neurone; the axis cylinder; and the end organ, or connection

with the tissue to which it is distributed. The part that we are most interested in at present, is the axis cylinder, the essential function of which is to transmit impulses between the neurone and the end organ. In a portion of its course it is insulated by a semi-fluid known as the medullary sheath, which in turn is surrounded by a membranous covering, the neurilemma or white substance of Schwann. At regular intervals the neurilemma dips down to the axis cylinder, which is designated as a node of Ranvier. The portion between these nodes is known as the inter-node and has beneath its neurilemma a nerve corpuscle located in the medullary sheath. The medullated nerves of the brain and cord have no neurilemma. The nonmedullated axis cylinders are covered by a delicate sheath containing nerve cells and are found mostly in the sympathetic system.

Groups of these nerve fibers are held together by a delicate connective tissue, the endoneurium, in bundles which in turn are surrounded by lamellar connective tissue, the perineurium.

The conducting function of the axis cylinder depends upon the integrity of the nerve cell which is interfered with by traumatic, inflammatory, or toxic agencies. When either of these conditions is present the distal portion of the nerve has lost its trophic influence and secondary degeneration obtains.

Two theories of regeneration are prevalent, the one that the axis cylinder starts at the axone and grows toward the end organ located in the special tissue to which it transmits impulses. The other theory is the nerve cells of the distal segment have yet retained beaded portions of the nerve awaiting connection with the central portion. The degree of change in these nerve cells with the attendant degenerative influence upon the muscle, tendon, and joint tissues, presents the picture which confronts the surgeon.

In the diagnosis of a nerve lesion, obtain the history, the date of the injury, the environment, the position of the patient when the injury was received, and the nature of the violence including its immediate effects. In the physical examination note the attitude of the parts involved, look for scars, motor weakness, and trophic changes. Test afferent and efferent impulses with constant and interrupted current. In the absence of response to both of these an early operation is advisable. If there is some response the nerve trunk is not of necessity parted.

The distinction between anatomical and physiological division of the nerve trunk is not made before the operation. The wasting and stiffness from disuse; circulatory disturbances, contractions with fibrous degeneration of the muscles,

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with adhesions of tendons make a detailed diagnosis very difficult.

There are practically four surgical lesions of the nerves: First where the nerve is indirectly injured by trauma in its adjacent tissues and the nerve is involved in the contracting cicatrix, which destroys the function of the axis cylinder. Second where the nerve is partly severed by a bullet or instrument cutting away its lateral portion. Third, where, as in a large nerve trunk, the missile passed through leaving a punctured wound. Fourth, where the nerve trunk is completely severed and the ends retracted.

From the beginning there must be continuous and unremitting attention in massaging the muscles and manipulating the joints keeping them as supple as possible and also to properly splint the affected muscles so that they may be retained at rest in their proper position.

The muscles and joints being in a fair condition we are justified in operating where there is complete division of the nerve, or where there is damaged nerve function with arrested repair, or on account of severe neuralgic pain.

In infected wounds of the soft parts, it is better to wait one month after the wound has healed, and two months after wounds of bone, or indefinitely if there are continued signs of recovery. It is better to operate early or primarily unless there is some special contra-indication, because by so doing a closer approximation of the segments is obtained if a second operation is required.

When a nerve has been caught in scar tissue and its function obliterated by the secondary contraction it is relatively an easy matter to release it and if degeneration is not too great, function will soon be recovered. Always dissect the scar tissue from the nerve—not the nerve from the scar tissue, and do it with a sharp knife. When a nerve has been partly damaged, all scar tissue is to be cut away and the parts approximated; and if necessary, the entire nerve is to be severed and an anastomosis made. In case the nerve trunk is punctured, or split, opening of the neurilemma and separating the nerve bundles, with a removal of all scar tissue may be indicated.

When a nerve is severed or caught within the cicatrix of a wound or both, cut in the known place for the nerve trunks and follow their lead toward the cicatrix until the two ends are freed, cutting the scar tissue as you go, and cause as little trauma to the nerve as possible. Now is the time to catch the fibrous scar tissue at the divided ends and with gentle but firm traction try to approximate the segments of the nerve.

The technique used in joining the ends of a severed nerve is either by direct or indirect union, or a semi-direct method known as neuroplasty. Neuroplasty consists of turning a flap from both segments of sufficient length to bridge the gap. The direct method is to remove by transverse section with a sharp knife, never with shears. At this time there is no tourniquet used, and all bleeding is arrested, obviating a possible post-operative hematoma between the nerve segments, or injury to the nerve by pressure. With a fine suture the neurilemma is pierced and the segments of the nerve approximated without torsion.

The indirect method of uniting the nerve is either to take a section of a sensory nerve and use it as a graft to bridge the gap; or to graft the ends of the divided nerve to the side of a normal nerve.

The end results of the indirect method are very discouraging, so much so that Moynihan considers them never to be of value. If the axis cylinder has a definite destination through a definite nerve bundle of axis cylinders, the indirect method of union is wrong, as is also that of making torsion in the direct method of union. It is not to be presumed that one could be so fortunate as to approximate the individual axis cylinders, but the surgeon should attempt to approximate the corresponding bundles, so as to have groups of nerves in relatively normal continuity, which certainly would cause less rearranging on the part of the axis cylinder growth than the confusion of the indirect method of union, not to mention the damage done to the normal nerve incident to the side graft.

When a portion of the nerve is destroyed direct union may be obtained by transplanting the nerve trunk into a shorter channel, by flexing the adjacent joints, or by removing a section of bone to shorten the distance.

The use of a layer of fat tissue, fascia, prepared section of an artery or vein, or Cargyle membrane, used as a protecting cover over the joined nerve has been advocated by some and equally condemned by others. This tissue may act as a foreign body, preventing the newly formed blood-vessels from reaching the nerve where they are much needed, form a contracting scar tissue, or be eliminated unchanged.

#### SUMMARY

*First*—Make examination and operate as soon as prudence will permit.

*Second*—If Carrol-Dakin solution has been used try to secure union of the nerve at the time of the secondary suture of the wound.

*Third*—Failure of these two leaves the nerve segments in a better position than if they had not been tried.

*Fourth*—In late nerve suture the muscles, tendons, and joints must be at least partly supple and receive constant and unremitting care.

*Fifth*—Strict surgical asepsis, the least trauma possible, and positively no torsion of the nerve trunk.

*Sixth*—Nerve grafting is of little value; neurolysis is useless; and side grafting to a normal nerve is to be condemned.

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#### Discussion

**Dr. W. A. Rohlf, Waverly**—In what little I have to say I probably will agree with Dr. Dales. He has not left very much to be said, but I will emphasize a few general principles regarding the technic. In suturing nerves we should avoid the reformation of scar tissue as much as we can, and this would suggest to us the idea that we must handle the tissues with all the gentleness we are capable of employing, that we must not use for suturing any material that will not be absorbed, and that we use as small an amount of material for suturing as possible. The Doctor mentioned the use of a portion of a vein from the patient as a covering for the site of the nerve suturing, but he did not suggest the idea that a patch as good or better for the nerve when necessary to cover it where you have not sufficient neurilemma so that you feel safe in leaving it without some other protection, would be a portion of fascia with perhaps a small amount of fat. Fascia from the patient, autogenous fascia as it were, would perhaps answer the purpose better than anything else. Certainly it is very proper that we do not promise our patients positive end results. If we do promise anything at all, let it be that they will have to exercise a great deal of patience because the benefit to be derived from nerve suturing will be a long time on the way. Another suggestion is a matter of technic that I do not believe the Doctor brought out, and that is that after we have our union made we must dress the part in such position that there may be no strain whatever upon the suture material. However, we will have to use the means indicated in any particular case.

**Dr. William Jepson, Sioux City**—This is a very interesting topic to all of us because from time to time we see cases that have suffered an accident leading to division of nerves if not to other injuries. Those accidents are particularly prone to occur about the upper extremity, the forearm especially and sometimes the arm. Many of the injuries occurring about the forearm are accidents in the sense that the indi-

viduals have been pushed through a window or in some other way glass has traumatized the tissues, and the wound itself is such as to give the impression that no serious injury has taken place until a few days later when symptoms arise which indicate paralysis of the nerve. I want to emphasize a number of points that have been brought out by the essayist. First, in the case of a nerve that has been traumatized under conditions where there is no infection of the wound following, while it is well for that injury to be repaired at once, yet the fact that it may not be repaired for months or even years constitutes no reason why repair should not be undertaken. And furthermore, if you do undertake to repair it at once you must not hope that you will have an immediate reestablishment of function, whether of sensation or motion, because undoubtedly following every division of a nerve there is degeneration of the distal axis-cylinder and restoration of function cannot take place until regeneration has occurred, and it cannot regenerate until the two ends have united. When injury has occurred under conditions where there is infection, we should do everything possible to protect the exposed ends of the nerve. We cannot suture them at the time because there would be no repair. In a number of cases of that character which have come under my observation I have put a thread of catgut around the end of the nerve and carried it up so that it would not be caught in the cicatricial tissue and be subjected to infection.

**Dr. Dales**—We have heard considerable about these cases and we read of them in the literature. For instance, there recently appeared in the Annals of Surgery a very excellent paper by Dr. Herman Fischer, detailing what he saw in Germany in regard to anastomosis by means of prepared calves' arteries. Dr. Fischer gave some very nice demonstrations in this connection, but it is well to remember that he came away from that country before function had developed in the cases so treated, and as there has been no correspondence between the two countries since his return, he does not know the end results. And in these cases end results are what we are looking for. Theoretically, of course, if we can put the ends of the torn nerve closely together in as nearly normal alignment as possible, with the least amount of trauma, we come as near making an ideal operation in these cases as is possible to be made, and the result would be that of probable regeneration. As to the time of operation, it may be a number of years afterwards. But if a hand or an arm has been deprived of its function by reason of a traumatized nerve with consequent muscle degeneration, or if the nerve has been caught in scar tissue, it will require more than the mere repair of that nerve to restore the normal condition. Therefore you must have massage, manipulation, constant and unremitting care, from the time of the injury for many months up to the time of ultimate repair, in order to restore proper function.

## FRACTURES COMPLICATING THE JOINTS OF THE UPPER EXTREMITIES\*

C. S. JAMES, M.D., Centerville

Discussion of the subject preliminary to lantern slides

First of all I wish to thank Dr. Ryan for covering the subject of bone surgery of the upper extremities in so scientific a manner, and I will endeavor to touch upon some points of particular interest. This is a very important subject to the general practitioner, therefore I will touch upon it strictly from that point of view, I have three suggestions to offer, which I view as being nearly surgical laws governing the treatment of fractures of the upper extremity, involving the joint. The situation is entirely different from that which we find in fractures of the shaft of a long bone of the upper extremity. We have here, instead of a simple fracture, an injury involving a very complex structure. We have the fact that we are dealing with a short fragment or fragments to consider, not only as regards our difficulty in establishing reposition, but also difficulty in maintaining alignment and position. The one element of gravest import to the man who with injury of the shoulder joint, the elbow joint, or the wrist, is that the patient's end-result is with an impairment of motion, still more, a radical loss of function. That deformed joint is never going to leave our town, but is going to stay right in our own community and meet us every day.

I am not going into the details of treatment, but simply offer some suggestions only as a sort of review. There are many men here who could do this subject more justice than I, and I will be content if the discussion incited by my radical views, if they be radical, brings out some facts that you men can take home and use in your every-day experience. Then I shall feel that my effort has been of some avail.

*First.* Exact Diagnosis—The primary dressing should be a strictly emergency dressing; not for the purpose of reduction, nor for the purpose of final adjustment, but strictly to serve as an emergency dressing for transportation to your office, the hospital, or the nearest adequate x-ray equipment in charge of a man who knows how to use it and how to read the plates after they are made. I consider that one is almost amenable to our courts today if he attempts the treatment of one of these fractures without taking advantage of that proven aid, the x-ray, not only for the

purpose of controlling the treatment, and even at the bed-side x-rays, if need be, should be used. It is true that the clinical symptoms, the historical findings with reference to how the injury occurred, the noted anatomical points and their relations—those facts are always essential, but they should be correlated with that exact proof of record that is obtainable through the use of two x-ray plates at right angles, or even more plates if necessary to absolutely determine the exact condition present.

I feel certain that the principle of individualization of cases should be religiously maintained. Do not conclude—this is a Colles' fracture, this is a fracture of the anatomical neck, or this is a supra-condylar fracture, and some authority says to treat these fractures in this way. Do not classify your cases under groups, but individualize every fracture of an upper extremity involving a joint.

*Second.* After the reduction of the fractures, the position in which that particular case is dressed is of major importance.

First, the position of the member should be that of its normal limit of motion in the direction most difficult to obtain as a result of treatment by the classical methods, namely: In shoulder injury, abduction, in elbow injury, flexion.

In an injury of the upper humerus, abduction as advocated by Osgood, Otto, and others, should be the position of choice, providing in this position you can maintain your alignment. We have here to deal with a short upper fragment, not a part any longer of the humerus, but a part of the structures on the opposite side of the joint, by reason of the ligamentous and other articular structures which attach to it. And particularly is that true of the injuries close to the lower extremity of the humerus.

This position of abduction and rotation can be maintained by several of the means at our command: By the ordinary figure-of-4 splint applied in the form of a plaster splint; by the means of the Thomas or some one of the many splints that are being brought out through the European war experience of today. We are breaking away from some of the old ideas of treatment of fractures. We are devising our splints to fit the individual case and a more general acceptance of this principle will do more to help the surgeon and the general practitioner than any other one factor.

In fractures of the lower end of the humerus, the supracondylar, the transcondylar fractures of the external condyle and internal condyle, and fractures of the radius, the position that repre-

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sents the normal limit of motion, most difficult to obtain by the classical methods heretofore used, is the one of choice, acute flexion.

If you have a partial ankylosis in that position your patient is able to follow the normal lines of movement, that is, to put his arm back, to feed himself, etc., and you not only take advantage of the patient's continuous effort to use the arm, but take advantage of gravity as well for overcoming the fixation present. By *acute flexion*, we mean that amount of flexion which you can obtain without obliteration of the radial pulse.

A third principle in the treatment of these fractures is early passive mobilization, early massage, with the employment of no definite force, but simply that amount of movement possible to produce without *pain*, the kind of passive motion and massage, with which you may gain the confidence of a child by proving to the child in a five or ten minutes' manipulation that it is not going to be painful. If the manipulations are sufficient to cause pain, you are antagonizing one of the most valuable principles in the after-treatment of this class of cases.

Spend time, care and detailed attention on these cases. Do not put the arm up in a certain position and say, "Come back in a week or ten days if it hurts you," but instead say, "I want to see you tomorrow." Insist upon their giving attention to their case, or change physicians. It is easier to do than to settle a case of malpractice.

The x-ray plate or the fluoro-scope should be used as a frequent check on the condition of these fractures, and your patient, should be strictly educated as to the importance of this. Your patient will willingly spend an extra \$20 or \$50 if he knows that thereby he will have a better chance to get a good end-result.

#### Discussion

**Dr. W. W. McCarthy**, Des Moines—Dr. James has covered the subject thoroughly, so it is not necessary to say much regarding treatment of fractures involving joints. Therefore I wish only to bring out some of the points that I consider valuable in a discussion of this subject. I believe that it is absolutely necessary to get satisfactory x-ray pictures of all cases of fracture, it does not make any difference what the extent of the fracture is. The individual who takes upon himself the responsibility of treating fracture must have a degree of confidence to justify him in taking the case, and he must figure that the patient should have attention each day. Speaking for myself I would say that heretofore we have felt that daily attention was not necessary, but we now feel that these patients are entitled to this. Since advocacy of the Jones treatment of the elbow we have had a

decrease in joint disability and motion by this form of treatment. I also believe that the dressing in cases of fracture, of the elbow especially, should not be allowed to remain too long. We oftentimes have seen fractures put up in some fixed dressing and allowed to remain until we get inflammation involving the joint surfaces and resulting in limitation of motion. We cannot give any fixed rule as to the amount of force we can exert in dislocations, taking these cases as a whole. The essayist spoke of treating fractures in an individual way rather than by placing them in particular classes. Nevertheless the dressings should be removed no matter what their form. As soon as you have sufficient reparative process to cause union between the fragments, the dressing should be removed and some form of motion instituted, it does not make any difference how severe or how light or what method is involved. I am also a firm believer in the use of massage and not applications to bring about restoration of motion. One thing that we frequently fail to do is to take the patient into our confidence when treating a fracture. We simply tell them that they have a fracture of some kind, and then go ahead and treat it without going into details as to what complications might result. We let it go in a haphazard sort of manner, and after recovery is complete we find that we have a little to answer for. No articulation that has been the seat of fracture is ever as good as it was before. Whenever a fracture line enters the articular surface a certain amount of change takes place in the reparative process that is of necessity going to injure the motion of the articulation. So I think it is a mistake for the Doctor to inform his patient that the articulation is going to be as good as it was before. He should expect some decrease in mobility whether the case is treated by the open or the closed method.

**Dr. D. C. Brockman**, Ottumwa—In undertaking to treat a fracture, the first duty the Doctor owes to himself and to the profession is to have another doctor see the fracture with him. I have had considerable experience with cases of malpractice, and I find that most of them come from the fact that the doctor has tried to treat the case alone. Then again, fractures should not be treated without an x-ray being taken before the dressing is put on, as well as after the dressing is applied either a plate or the fluoro-scope used. Another thing, I have made more mistakes in the treatment of fractures by keeping them demobilized too long than any other way, especially about the joints. In fracture involving a joint mobility must be started early and kept up all the way through. My early results, in the treatment of Colles' fracture particularly, were bad, simply because I put these cases up and held them still and kept them immobilized too long. Start motion early and keep it up every day. Colles' fracture never ought to be dressed with a long splint, it should always be a splint that comes only part way down on the hand, the fingers being in motion every day. The more we have the patient use the fingers, watching

him carefully, the better the results. I am speaking now from experience. Seven weeks ago today I sustained a Colles' fracture of the left wrist. I moved the fingers every day. On the seventh day I took off the dressings, put three tongue depressors along the anterior surface with adhesive plaster, and I could then operate, and I operated more the second or third week after sustaining the fracture than I ever did during any two weeks in my life. I have perfect use of the hand although there is a little deformity and it is sore yet, but the good results are evident. And they are due almost entirely to the fact that I used the hand every day and used it more than I ever knew a member with fracture near the joint to be used before, especially Colles' fracture. I had a picture taken every three days and a fluoroscope every day or two. The main point is that the more continually we use the hand in these cases the better the results.

**Dr. D. S. Fairchild, Clinton**—I do not think there is much opportunity to quarrel with Dr. James about the treatment of fractures. The only point that occurs to me is whether or not too early motion is desirable. It is undoubtedly true that in fractures near the joint the more the parts involved are interfered with or disturbed the greater the amount of callus that is thrown out, and, on the other hand, the joint may be impaired if we do not exercise it enough. We do not know for how long a period the Doctor means that passive motion should take place. It is quite true that many fractures result in deformity or impairment of motion due to callus formation rather than to deformity of the bone itself. Another point I wish to mention in connection with treatment of fractures of the forearm is the form of dressing to be employed. In cases of fracture we have had more malpractice suits on account of the dressing than any other one cause. We have seen cases of Volkmann's paralysis, which is a most unfortunate condition because the difficulty is almost incurable, and it means much trouble for the doctor who has treated a fracture with Volkmann's paralysis following. The question of early motion in a case of Colles' fracture is somewhat different because a Colles' fracture, when once reduced, is not easily displaced. So this would not cause quite so much trouble as a fracture near the elbow. Therefore when we speak of early motion, we should be sure to define what we mean by early motion, because we know that stimulation of the tissues of the joint by motion will stimulate the formation of callus and result in impairment of function.

**Dr. Chas. Ryan, Des Moines**—I want to thank Dr. James for so thoroughly covering the treatment of fractures of the upper extremity, which I would like to have done. However, one or two points brought out by Dr. James I did not stress upon in my paper, and these I wish to further emphasize just for a moment. In the first place, in instituting complete immobilization, complete insofar as you prohibit rotation of the bones of the forearm taking place after

your dressing is applied, placing the force on the carpal bones, you should carry it, as Dr. Brockman has said, only to the carpo-metacarpal articulation, allowing the fingers free movement from the first. I also want to lay especially strong emphasis on my experience in instituting early passive motion and daily massage following the application of hot water, and not carried to the point of pain production. I do not believe that it is a good idea to carry passive motion to the point of producing pain, at least that has not been my experience. I have one or two slides I wished to show, particularly in a case of myositis ossificans in which a dislocation of the elbow-joint was primarily induced by over-manipulation too early instituted in that case. Another point brought out by Dr. James I wish to endorse most heartily, and that is the individualization of every fracture case. I have a lantern slide which will show that point in the application of the Jones position of fracture involving the elbow-joint. It was a supra-condylar fracture in which the attending surgeon had put the arm up in the Jones position, but he had carried the lower fragment of the humerus up with his position, and the lower end of the upper fragment of the humerus was in the place where he should have had his triangular bone. The patient came eleven days after the supposed reduction, complaining of pain, swelling and ecchymosis were present, and because he wished relief from pain he sought other advice. Up to the eleventh day no x-ray picture had been taken, and when taken it showed that one end of the humerus was sticking out almost compound through the tissues of the elbow, and the Jones position had been carried out by quite a marked increase in the length of the forearm. It was rather a happy circumstance that the x-ray picture was taken in time to make a re-reduction and get a fair joint, although he did not have perfect function. Another thing that has been touched upon is that no class of cases comes to us that carries as much responsibility, that furnishes a more fertile field for malpractice proceedings, and that requires more time and attention, than that class of fractures treated by the closed method, and for which comparatively we are recompensed by the smallest remuneration. When the surgeon treats a fracture by the open method he is usually paid adequately for the time and attention required. When the fracture is reduced by the closed method and the surgeon sees that case daily during the first week and as often as necessary after the first week or ten days, he is not paid adequately. The fee should be made higher to compensate him properly for the time he spends on these cases.

**Dr. James**—I want to thank Dr. McCarthy for the suggestion of heat. This is valuable and associated with the use of massage and I overlooked it. The question has been asked, what is meant by early massage? In some cases early massage would be in twenty-four hours, say, in another in six or seven days. It depends altogether upon the condition in the individual case, and you must use your judgment.

And I would add again that by early motion I do not mean forced motion. Do not put the patient through stunts to see what he can do, and all manipulation must be painless. The question of Volkmann's paralysis is a very interesting one. I think Dr. Fairchild will agree with me that there are a number of cases on record in which Volkmann's paralysis has occurred without the use of a splint.

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### LEPERS IN THE UNITED STATES

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There are about a thousand lepers in the United States. Experts of the Rockefeller Foundation estimate that there are 2,000,000 lepers in the world. In the leper colony of Louisiana there are 110 native born Americans among the patients. In Molakai, Father Damien's successor has lived thirty years without a trace of leprosy. Through the new treatment by which chaulmoogra oil is now given, patients have so far recovered that they have appeared to have no trace of leprosy for two years—which may be a step towards a real cure. At the largest leper colony in the world, Culion in the Philippine Islands, there are now 5,000 lepers. At one time there were 9,000; segregation has reduced the number to this extent.

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### GIFTS TO UNIVERSITIES

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The medical departments of Harvard University, Columbia University and Johns Hopkins University, have been left a residuary estate estimated at between \$6,000,000 and \$10,000,000 by Captain Joseph Raphael de Lamar, capitalist and mine owner, who died December 1. The object of the legacy is to provide funds for the study and teaching of the origin and cause of disease, and its prevention. The study and teaching of dietetics is also demanded. Captain de Lamar told in detail his wishes with regard to the uses of the residuary funds. They are to establish fellowships, scholarships and professorships, and are to be used for the construction and maintenance of laboratories, clinics and dispensaries. The result of the study of dietetics and the effect of different foods and diet on the human system, are to be made the subjects of public lectures, and are to be published for the use of the general public not in scientific publications only, that the people at large may have the benefit of such research.

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Mortality from tuberculosis among the civilian population and in the armies of all the countries engaged during the four years of hostilities, has at least approximated the total number of soldiers killed in battle, according to Dr. Livingstone Farrand, director of the American Commission for the Prevention of Tuberculosis in France. He states that 50,000 of the men called to the colors in the country's first draft summons were found to be tubercular. He declares

that this is one of the striking conditions of the prevalence of the disease in the United States.

Dr. Hattie, medical health officer for Nova Scotia, estimates that the economic loss from unnecessary deaths in Canada is \$150,000,000 per annum. Professor Irving Fisher, of Yale, estimates that the saving possible from better conditions of public health in the United States is far greater than \$1,500,000,000 and may be \$3,500,000,000. It is estimated on the highest authority, that in North America, 690,000 people are lost annually by deaths from preventible causes. These are appalling figures, even today, contrasted with the toll of life taken in Europe. Feeble-minded children cost America \$90,000,000, and crime costs \$600,000,000 a year. A great proportion of this loss could be saved if proper hygienic measures were taken by government authorities. Much of the loss is due to lack of intelligent development and to criminal indifference. The very sacrifices which have been made in the war demand that attention be paid to laying the foundation which will ensue healthy living conditions and increased efficiency in the future.

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### JOINT INFLUENZA COMMITTEE

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A joint influenza committee has just been created to study the epidemic and to make comparable, so far as possible, the influenza data gathered by the government departments. The members of this committee, as designated by the surgeon general of the army, the surgeon general of the navy, the surgeon general of the public health service, and the director of the census, are: Dr. William H. Davis, chairman, and Mr. C. S. Sloane, representing the Bureau of the Census; Dr. Wade H. Frost and Mr. Edgar Sydenstricker, of the Public Health Service; Colonel D. C. Howard, Colonel F. F. Russell, and Lieutenant-Colonel A. G. Love, United States Army; Lieutenant Commander J. R. Phelps and Surgeon Carroll Fox, United States Navy.

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### GOLDEN JUBILEE—VICTORY CELEBRATION MEETING

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The fiftieth annual meeting of the American Medical Editors' Association will be held at the Marlborough-Blenheim Hotel, Atlantic City, on Monday and Tuesday, June 9 and 10, and will take the form of a semi-centennial celebration and a victory meeting, emphasizing the part which this Association and its members have taken in the world's war.

The enthusiasm manifested upon the part of the president, ex-presidents and officers of this Association is an assurance of its successful outcome.

A most attractive program is now being prepared and every physician, even remotely interested in medical journalism, will find it to his advantage to attend.

# The Journal of the Iowa State Medical Society

D. S. FAIRCHILD, Editor.....Clinton, Iowa

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## ADVERTISING IN MEDICAL JOURNALS

The lay public apparently have the idea in mind that medical journals are filled with technical matter which only those who know the signs and symbols of the profession can understand; that medicine is a sort of occult science filled with strange and mysterious things which only those who have been initiated into the cult can properly appreciate or understand; that only doctors can properly read medical books or journals. All this is unfortunate and the feeling should be counteracted as far as possible. There are of course certain journals of a technical character which even doctors look upon askance as being difficult but necessary for the advancement of the science of medicine. Many of our journals, particularly our state journals, which in addition to a certain number of technical papers, discuss matters of general interest to the public from the standpoint of public health and sanitation; from the standpoint of organization and the aspirations of the profession for the public good; from the standpoint of public economies in so far as the home, health and public morals are concerned; the rise and fall of epidemic diseases; the health of cities and towns and many other things. The state medical journals are not merely bulletins of medical societies alone, but also serve as a medium for the transmission of news touching an important class in every community. A layman might read with advantage and profit any one of a number of state journals which are issued monthly by state medical societies.

It cannot be doubted that the Journal of the American Medical Association wields a great influence in lay circles. It is on the watch for any measure which threatens the dignity of the medical profession or tends to expose the public to dangerous influences, but it falls to the state journals to guard public and professional interests in the individual state. To do this requires time and money. The medical profession stands ready to meet the requirements but feel that the public is so much a gainer that it can well afford to contribute. As the general public has not been solicited for subscriptions the only recourse is to advertising. We cannot ask patrons to advertise out of good feeling, only when the advertiser is assured that some advantage comes to him.

Most of the medical journals now guard their patrons by accepting ethical matters only, and when this is true, we may make common cause with the advertiser through the profession who receive the journal. If the journal is honest in its advertising pages, the doctors who are seeking something they need, should examine the advertising pages with the same care that they would examine the scientific or news pages for information. We are seeking information for the benefit of our readers; we are likewise seeking advertisements for the comfort and advantage of our readers. And our readers should reciprocate by considering our advertisers.

There are many kinds of business that would be friendly to us if they believed the purchasing physician would look over the advertisements in his medical journal. If a sanatorium believed that when a patient consulted a physician for reference he would look over the journal for information as to a safe and reliable place to go, the sanatorium would look upon us with favor. When the agent of a medical supply house visits a doctor with reference to selling supplies, noted that the doctor consulted his journal for information, it would influence him also. Look over the advertising pages of a farm journal and it is easily seen that the farmer relies on the men who edit the paper for information as to where he can purchase what he wants. Why is it that doctors are so different from other men? The farmer, the stock breeder and everybody else knows, that the more prosperous and influential his paper is, the better his interests are served. The Journal reviews the books offered for sale, points out what the books contain and helps the doctor to determine if the book contains what he wants, hunts up medical news from many sources, reports societies from the best information obtainable and seeks the opinions of others as far as possible on points of great economic importance and endeavor.

ors to help him form his opinions on a great variety of things, if the journal fails to do more it is because its facilities are not greater.

We are not short of funds, our treasury is well filled, we are only wondering if we could not do more, if we cannot increase the influence and importance of the medical profession, if we cannot bring the public to a fuller understanding of what the medical profession can do for it.

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#### NON-PRODUCTIVENESS OF THE GENERAL PRACTITIONER

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A suggestive paper appears in the London *Lancet* for January 25, 1919 under a somewhat different title which endeavors to show why general practitioners of medicine do not contribute more to the advancement of medical knowledge.

The subject is too complex to be easily treated. The demand for bread and butter is an important factor. Lack of opportunity and particularly, methods of analytic reasoning and training of mind and the lack of the scientific bias, are other factors. In the first years of practice, the young doctor finds the obligations of a living occupying the first place, and if he is far-seeing and feels the needs of a foundation for future reputation his experience is too limited to form the basis of study and comparison, and he therefore falls back on the teaching of his professors and text-books for his diagnosis and treatment. It therefore happens that his dependable knowledge is fragmentary and uncertain. The conception of the layman of the essentials of the study of medicine is the labeling of the names of diseases and careful docketing of remedies in the practitioner's brain. The young physician is for a time at least influenced by this conception, losing sight of the fact that medicine is not an exact science but is necessarily based on a wide knowledge and the broadest conception of scientific principles. In this beginning time of a professional career many men of looser mental habits are often led to consult easier and more rapid methods of gaining professional preference by resorting to popular ways, and after gaining a more or less successful practice reach the limits of their success at a comparatively early period.

The habit of non-productiveness even after experience has been gathered and the immediate living necessities has been acquired becomes fixed in the majority of men and the full success looked for has not been realized and the practitioner finds himself towards the end of his professional life in the mediocre class.

The most important factor in the direction of productiveness is the scientific bias of mind which

overcomes the lack of opportunities and inertia. The young practitioner finds within easy reach clinics, books, and journals and finally concludes that the firmest foundation for future professional success is a large stock of classified scientific knowledge. It often happens that the most successful physician gains practice slowly, Sir Andrew Clark states that he "strove ten years for bread, ten years for bread and butter and twenty years for cake and ale." There is an influence in America which the English physician outside the large cities does not enjoy to the extent we do, and that is the influence of local societies which may to a certain degree take the place of clinics. To the general practitioner the expense and particularly the loss of time and the danger of any prolonged absence from his practice is important. In most states short time clinics are organized to meet this difficulty. The annual clinics at our state university are of great importance and should be more generally attended by the general practitioner of the state. At Iowa City the clinics are intended not for the specialist but for the general practitioner; the class of medical men we have in mind; if the habit of attending these clinics is begun early in professional life the reason for non-productiveness among general practitioners will very materially lessen. The case is somewhat different with men in special lines of practice. These men are not so burdened by the multitude of professional duties and they are not so exhausted by constant demands on their time regardless of season or hour.

The general practitioner of experience above all men has something to communicate, if his experience and knowledge are well classified and arranged. Great opportunities are before them if they would realize them early in professional life. The lack of opportunities are more apparent than real. Our local societies, the abundant literature and our short university clinics supply the opportunity in Iowa, and appear to set aside the somewhat pessimistic views expressed by the *Lancet* writer.

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#### THE NATURE OF NERVOUSNESS IN SOLDIERS

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Major Foster Kennedy, R. A. M. C., Research Reports, War Medicine, Paris

Major Kennedy considers the influence of war conditions in producing psycho-neurosis, shell shock, hysteria and neurasthenia in soldiers which brings us to states of the nervous system with which we were more or less familiar in railway accidents. It was a common observation that persons really injured in wrecks rarely developed

neurasthenia or hysteria symptoms, but rather those affected by psychic conditions who came under the influence of suggestive or interested friends or the unwise and careless diagnosis of physicians. The author objects to the term shell-shock in that it refers to some mysterious brain change which the soldier cannot overcome. Kennedy is of the opinion that the hemorrhagic foci found in the brain were due to injuries of skull not recognized. That the diagnosis of shell-shock presupposes a real brain change which renders the men helpless by eliminating the psychic element which may be overcome. An important factor in dealing with nervous states in soldiers is an accurate and confident diagnosis. The uncertainty and doubt which surround a diagnosis is an additional element of fear and intensifies the psychic disturbance. We have frequently observed the influence of suggestion in accident cases in which no particular objective evidence of injury could be found and that the best curative results followed relief from solicitation, and the mingling with people who had no interest in the patient's welfare. Major Kennedy is of the opinion that an accurate scientific and convincing diagnosis and treatment at camp in cases in which no organic change in the nervous system exist is better than to invalid the patient home or to a base hospital. In functional paralysis of an arm for instance, the suggestion of an injury to the brachial plexus leads sometimes to a more or less prolonged invalidism, and he emphasized the importance of an early and accurate diagnosis as to the condition of these nerves as a means of mental relief and confidence. Major Kennedy has observed but very few cases of malingering to escape service; only occasionally when the soldier had some temporary reason to gain a little time for a certain purpose.

We are led to infer from this communication that a material loss of man power has come from an injudicious consideration of nervousness among soldiers and that some of the views entertained should be revised.

#### MEDICAL HISTORY OF THE WAR

Col. Champe C. McCulloch, Jr., M.C., U. S. Army, executive officer of the Board for Collecting and Preparing Material for a Medical and Surgical History of American Participation in the European War, has arrived in France, to establish his administration for this purpose. During his absence Lieut-Col. Casey A. Wood, M.C., U. S. Army, will be in charge of this work in the surgeon general's office.

#### MEMORIAL

A beautiful tablet to the memory of Lieut.-Col. John McCrae is to be placed in the Royal Victoria Hospital, Montreal, and contains the following inscription:

In memory of Lieut.-Col. John McCrae, assistant pathologist and assistant physician, 1904-1917, chief of the medical division, No. 3 McGill Canadian General Hospital, Boulogne, France, consultant of the first army. Died on active service in France, January 28, 1918. Then follow the stanzas of Colonel McCrae's now famous poem, "In Flanders Fields."

#### THE FOUNDER OF THE RED CROSS

Charles Downer Hazen, lecturer and historian, has written for the July Red Cross magazine, a most opportune article on Henri Dunant, the man whose vision and years of work led to the founding of the Red Cross.

Out of observations and experiences of a crowded and heartsickening week (Battle of Solferino, June 24, 1859). Out of the scenes of bitter, piteous unavailing distress a thought gradually crystalized in the mind of Dunant which was to be the germ of a great work of beneficence. He saw that the medical service of no army could ever be adequate to the demands of a great battle; he also saw that no sufficient service of relief could be improvised on the spot at the moment of emergency itself. As there were no signs that wars were soon to cease among men, it was wise to draw the obvious lessons of experience and prepare methodically, in times of peace, to meet the problems that wars inevitably bring.

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#### BLADDER INJURIES IN WAR

A. Fullerton (British Journal of Surgery) states that injuries to the bladder form a very small proportion of the total wounds reaching the base hospitals. The proportion is about 1:3000 or 1:4000. Prognosis depends to a great extent upon associated injuries. The author's report is based on a series of fifty-three cases, thirty-five nearly 70 per cent. being complicated by injury to the intestines, or bone or both. In twenty-six cases there was an injury to some part of the lower intestine and thirteen of these were also complicated by some bone fracture. Nineteen cases were complicated by injury to the rectum. The small intestine was also injured in six cases.

The morality of bladder injuries is very high. There were in this series of cases thirteen deaths. The chief causes of death have been pelvic cellulitis, peritonitis and sepsis. The chief sequelae are bone necrosis, cystitis, calculus and stricture of the neck of bladder.

Treatment should be conducted along common sense lines. Accumulations of infected fluid, blood clot and fecal material in the pelvic connective tissue must be prevented, if possible, by attention to the original wounds. If this is unsuccessful, however, suitable incisions should be made. The fact that urine flows over the surface of a wound is not in itself an indication for suprapubic cystotomy. If the bladder can be kept clean by irrigation, aseptic urine from the kidney does not appear to have a deleterious effect on the wound. Suprapubic cystotomy will drain an infected bladder but will not prevent pelvic cellulitis and sepsis from occurring in the perivesical connective tissue and parietes.

### INSTITUTIONAL CARE FOR THE AGED

Dr. I. L. Nascher of New York in *Modern Hospital* comments on the care of the aged in institutions. He calls attention to the fact that there are numerous excellent institutions for the care of the aged, but that several very important things are left out of consideration. One is the question of diet which rarely receives scientific thought. It is well known that the aged need scarcely more than one-half of the amount of food calculated in calories required by young and vigorous young persons. Of protein and carbohydrates they require less than one-half. Of fats, the heat producing food, they require almost as much as in earlier life. For the reasons mentioned it would be most desirable if the scientific dietary already worked out could be considered in the care of a class entitled to the best that can reasonably be given them.

Another point referred to in this paper is employment. These old people become restless and unhappy because of having nothing to do. A large proportion of the inmates of the old people's homes have been accustomed to an active life, simple it may have been and within narrow limits, but it has been an employment and now, left with nothing to do but hold their hands in a rather hopeless way life has few attractions. It would therefore be of the first importance as far as the great majority of inmates are concerned if the things above referred to could be so organized and adjusted as to supply these old people with a diet related to their condition and age and with an employment which would devote their thought and keep them busy in such a way as to lessen the despondency and depression which so often attends persons well down in the decline of life. Light outdoor work as far as possible and house work when conditions permit. A fundamental fact in locating an old people's home

should be a tract of land sufficient for light farm and garden work and such other means of employment and entertainment as would occur to a board having in mind the needs of dispelling much of the gloom that surrounds persons whose days have nearly run.

### THE INFLUENCE OF TOBACCO IN PULMONARY TUBERCULOSIS

Wm. S. Duboff and Major Gerald B. Webb Lane published some observations on the above subject in *American Review of Tuberculosis* for March, 1918. It has been alleged that tobacco smokers suffer more from laryngeal irritation than non-smokers and are therefore more predisposed to tuberculosis. After a long series of observations Dr. Duboff finds that considered from a statistical point of view smokers have a slight advantage over non-smokers in the incidence of laryngeal irritation, but there are so many elements of error in statistical studies that it is safer to assume that there is no material difference between smokers and non-smokers in the frequency of throat irritation and tuberculosis. Again women are non-smokers and yet there are as many cases of throat tuberculosis as among men.

Major Webb observed among men who inhaled cigarette smoke bronchial irritation which did not exist among men who smoked cigars or pipe, but did not lead to tuberculosis, indeed it was found that a larger per cent. of soldiers were discharged on account of tuberculosis among non-smokers than among smokers.

Dr. David R. Lyman of the Gaylord Farm Sanatorium, Wallingford, Conn., in the *American Review of Tuberculosis*, calls attention to the danger of contact exposure in tuberculosis, particularly in children. At the International Congress on Tuberculosis held in Washington in 1908 the following resolution was adopted:

"Resolved, That the utmost efforts should be continued in the struggle against tuberculosis to prevent the conveyance of tuberculosis infection from man to man as the most important source of the disease."

This resolution has met the unanimous approval of all later congresses and of those who have studied the subject.

A recent report on "The Study of Tuberculosis Families in Their Homes" states:

The possibility of any broad construction program for the care of dependent tuberculosis families must be determined by the attitude of the health authorities as to the degree of control they are willing to exercise over the avowedly dangerous foci of infec-

tion; the active cases living under improper home conditions. The final responsibility here undoubtedly rests with the medical profession.

It is admitted there is a decided danger of nurses or others coming in contact with children even for short periods if such persons have an active foci of tuberculosis infection. If we expect to accomplish much in preventing tuberculosis care must be exercised in preventing contact with those having active foci of infection. It is deeply to be regretted that we have so few health officers who have the courage to keep constantly before the public the danger which surrounds them and a public which is so indifferent.

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Considering incomes over \$3,000 the per cent. according to employment is stated in the Buffalo Medical Journal as follows: "In 1917, 61 per cent. of engineers (civil, mining, etc.) reported incomes over \$3,000. Other percentages were: Insurance agents, 28; stock and bond brokers and other brokers, 20; lawyers and judges, 19; mine owners and operators, 18; manufactures and manufacturers, 10; architects, 8.5; army and navy officers and the medical profession (20,348 reporting), 7; editors, authors and reporters, 1.5; commercial travelers and real estate dealers, merchants, etc., 4.5; saloon keepers, 1.9; clergymen, 1.4; actors and musicians, 0.55; teachers, 0.47; farmers, 0.24. It will be noted that the percentages are merely for those making returns at all. Thus, if the returns are honestly made, the actual percentage of physicians earning \$3,000 or more, net is 1 per cent."

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#### WAR NEPHRITIS

In a recent number of the Journal of Urology an article appears prepared by Dr. P. Amenille on "Le Nephritis de Guerre."

It appears that nephritis is much more common at the fighting front, than during times of peace and is more common among English troops than among the French. The difference is believed to be due to the higher consumption of protein consumption by the English. The Hindoo contingent are not subject to the disease. It is found almost always among men in the trenches and those engaged in constructing them. It is thought not to be due to exposure but to an infection.

The pathologic changes chiefly involves the connective tissue of the kidneys and usually not the glomeruli although there is often a proliferation of the epithelium of the capsul of Bowman. Brocho-pneumonia is nearly always present.

Treatment—In the early stages no solid food is given but an abundance of fluids. The diet should be salt-free. The only drug is three grains of theobroma a day. The prognosis is usually good, better in the edematous type than in the acute azotemic type. Recovery is generally slow, although in some cases recovery takes place within two or three weeks but this rapid course is exceptional.

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#### CURE FOUND FOR GAS GANGRENE

The American Red Cross Research Society in Paris has received an announcement from Major Pilcher that a cure has been found for gas gangrene. Quino-formol is what the new solution is called and it is compounded of quinine, acetic and hydrochloric acids, and formalin, thymol and salt. It is said that it has the advantages of simplicity of preparation, stability and portability. It is suitable for the initial treatment of wounds at dressing stations or evacuation hospitals. Recent tests of quino-formol, made at the Auteuil hospital showed just one failure, and not a single amputation was performed in six weeks. Undoubtedly a record since the beginning of the war, there had been an influx of seriously wounded soldiers. Application of the solution is identical with that prescribed for use of the Carrel-Dakin treatment which has been often used in conjunction with quino-formol.

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#### COST OF MEDICAL EDUCATION

In commenting on the gift of \$10,000,000 bequeathed to the Harvard Medical College, the College of Physicians and Surgeons of Columbia University and Johns Hopkins by the late Captain Joseph Raphael De Lamar, Dr. Samuel W. Lambert, Dean of the College of Physicians and Surgeons, tells what this gift means to the institution with which he is connected in carrying it nearer the goal it has set for medical education in New York. Regarding the financial status of our large universities, he says "there is no danger of their having more funds than they need. Neither Columbia University nor any other which he knows is operated at a profit. The school of medicine is one of the most costly departments at Columbia University. It costs the university \$3,000 to educate a man for the degree of M.D., yet of this sum the student only pays \$1000. During the past five years the teaching staff of the medical school has contributed between \$25,000 and \$30,000 to the school for one purpose or another."

ELEPHANTIASIS TREATED BY KONDOLEON OPERATION

Dr. W. E. Sistrunk of the Mayo Clinic publishes in Surgery, Gynecology and Obstetrics for April, 1918, the histories of three cases and results of Elephantiasis treated by Kondoleon operation.

Kondoleon proposed removing portions of the aponeurosis to connect the superficial lymphatics with the deep group and in this way secure drainage of the superficial structures. It was his opinion that the deep and superficial lymphatics were separated by the aponeurosis covering the muscles and that the edema was usually limited to the subcutaneous tissues and fat lying between the skin and aponeurosis. Long incisions are made along the inner and outer aspects of the affected limb and through these a large slice of edematous fat is removed. The aponeurosis is then opened and a portion of it excised an inch or inch and a half in width. The wounds are then closed without drainage in such a way that the skin with the fat attached to it comes in contact with the exposed muscles. Dr. Sistrunk reports three cases treated by this method with the most gratifying results.

Trademarks of Superiority, "Made in the U. S. A. and advertised in the Journal of the Iowa State Medical Society;" and don't forget to say "I saw your announcement in the Journal, etc."

HOSPITAL FOR AMERICAN SOLDIERS

The first hospital for American soldiers has been lately opened in Liverpool. All other hospitals in Britain have been for American officers. The hospital is known as American Red Cross Military Hospital No. 4, and is situated in the Mossley Hill district. Already many American soldiers occupy its cheerful wards. The hospital proper occupies Mossley House, the former home of Dr. Edmund Knowles Muspratt, a noted authority on chemistry, and one of Liverpool's leading citizens, who, when he heard that the Americans wanted it, gladly turned it over to them. The house stands in the center of seven acres of beautiful grounds, the flowered gardens of which are rapidly being converted into plots of rising vegetables. An American flag, flying from the tall staff in the front of the grounds, points the way to visitors.

The largest American Hospital in England will be located at Salisbury. It will accommodate three thousand wounded Americans from the Western front.

Efficient Canadian Hospitals in France

St. Cloud is another of the most efficient Canadian hospitals in France; it was given by the Canadian Government for the treatment of French poilus, and is under dual control. The French Government supplied the huts and the Canadian Government furnished them. Each hut is named after some province or city in Canada. Each hut averages twenty-eight beds, and 60 per cent. of the staff numbers 223. The officer in command is Lieutenant-Colonel Casgrain, of Windsor, Ontario.

RATE OF PAY OF MEN IN FIGHTING ARMIES

The General in the American Army, which is the rank of General Pershing, receives \$883.33 per month, twice the pay of a German general and a little less than twice that of a French general, but less than the base pay of a general in the British Army, which is

\$1380 a month. A lieutenant-general in the American Army gets \$750 a month, while the same officer in the British Army gets \$850; the other ranks of officers in the American Army receive pay at a higher rate than officers in other belligerent countries.

Base rate of pay per day of enlisted men of

	U. S.	Great Britain	France	Italy	Germany
Private .....	\$ 1.00	\$ .36	\$ .05	\$ .02-.04	\$ .10
Private, first class...	1.20	.50	.085	.05-.10	.25
Sergeant .....	1.27	.64	.20	.40-.80	.35

Base rate of pay per month of officers

2nd. Lieutenant.....	\$141.67	\$ 39.00	\$ 60.00	\$ .30-.60	\$ 30.00
1st. Lieutenant.....	166.67	48.00	70.00	.40-.70	38.00
Captain .....	200.00	86.00	80.00	.60-.90	90.00
Major .....	250.00	115.00	90.00	.80	130.00
Lieutenant-Colonel..	291.67	135.00	165.00	.95	170.00
Colonel .....	333.33	145.00	142.00	1.26	176.50
Brigadier-General ...	500.00	400.00	200.00	1.60	203.00
Major-General .....	666.67	525.00	300.00	1.90	260.00
Lieutenant-General..	750.00	850.00	.....	2.40	267.00
General ..	833.33	1380.00	490.00	.....	357.00

## ACUTE ADRENAL INSUFFICIENCY

Dr. William Boyd of Winnipeg, Canada, in the December number of the Journal of Laboratory and Clinical Medicine presents an interesting historical outline of this interesting disease, together with a case with the post mortem findings and observations.

## THAT THE WORLD MAY BE CLEAN

That the world may be clean. That is the way I view the great task of the Red Cross workers of the world. Clean physically, mentally and morally—I can think of no more inspiring or practical gospel for humanity than that. And the Red Cross is the evangelist \* \* \* by Major General Merritte W. Ireland, Surgeon General of the United States Army.

## COLONEL ROOSEVELT'S REMEMBRANCE

Colonel Theodore Roosevelt, shortly before his death, arranged to give substantial expression of his gratitude to the people of the little village in France near which his son Quentin is buried. Through the Red Cross he provided that \$6,900 of the Nobel Peace Prize money awarded to him should be used for the benefit of the simple country people who have kept Quentin's grave covered with flowers.

Colonel Roosevelt left the decision of the exact form his gift should take to the discretion of the Red Cross, and that organization is now trying to ascertain the wishes of the villagers.

## ORDERS TO OFFICERS OF THE MEDICAL CORPS, U. S. ARMY

To Fort Logan H. Roots, Ark., from Camp Logan, Capt. A. M. Sherman, Clarinda.

To Fort Snelling, Minn., from Otisville, Capt. W. L. Hearst, Cedar Falls.

To Hoboken, N. J., from Fort Des Moines, Lieut.-Col. A. von Schrader.

To Camp Hancock, Ga., from surgeon general's office, Capt. G. H. Steele, Belmont.

To Fort Des Moines, Ia., from the surgeon's general's office, Major T. A. Burcham, Des Moines.

To Fort Logan, Colo., from Camp Grant, Lieut. S. D., Jones, Fort Dodge.

To Fort Riley, base hospital, from Camp Cody, Lieut. G. S. Hermence, Marshalltown; from Fort Oglethorpe, Major, W. E. Draper, Manilla; from Topeka, Lieut. C. D. Shelton, Bloomfield.

## ACUTE ENDOCARDITIS FOLLOWING WAR WOUNDS

It has for a long time been known that septicemia and pyemia may produce acute endocarditis with attendant serious results. Captain H. T. Karsner; M. R. C. published in Archives of Medicine for De-

cember, 1918, observations on the necropsies on eighty-seven soldiers who died in active service in France. The author presents some interesting data on the pathological changes occurring in the heart together with the bacteriology. The writer expresses the belief that treatment can be successfully modified by a consideration of the changes in myocardium and renal parenchyma which may permanently handicap the patient in after life.

## SPANISH EDITION OF THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

At the suggestion of President George E. Vincent of the Rockefeller Foundation, the board of trustees has after mature consideration concluded to establish closer medical relations with the Central and South American Republics, Mexico, Cuba, Philippine Islands and other Spanish speaking American people by publishing an edition of the American Medical Association Journal in the Spanish language. This action on the part of the board of trustees is to be commended as a further means of bringing together the peoples of the Western Hemisphere. The business and commercial interests are endeavoring to cultivate a closer relationship and it is equally important that the professional and scientific interests should likewise join in drawing these people together. The first number was published in January.

Medical Veterans of the World's War is the name of an association incorporated in the District of Columbia on November 15, 1918. Its object, as stated in its charter, is "To perpetuate fellowship, prepare history, secure cooperation for the mutual benefit of the medical men who served in the War of Nations, 1914-1918, and for the material improvement and social intercourse of its members." The incorporators are Col. F. F. Russell, representing the Surgeon General of the Army; Rear Admiral E. R. Stitt, representing the Surgeon General of the Navy; Assistant Surgeon General J. C. Perry, representing the Surgeon General of the Public Health Service; Colonel J. S. Easby-Smith, representing the Provost Marshal General; Colonel Victor E. Vaughn, representing the Association of Military Surgeons; Colonel W. J. Mayo, representing the American College of Surgeons, and Lieut.-Colonel Hubert Work, representing the American Medical Association.

It is proposed that the membership of this association shall include:

(a) Medical officers who have served in the medical corps of the U. S. Army, U. S. Navy and the U. S. Public Health Service.

(b) Physicians who have been officially appointed by the President, Provost Marshal-General, or the governors of states, or who have served as members of or medical examiners on local, medical advisory and district boards.

### RETIRED MEDICAL OFFICERS TO SUBMIT MANUSCRIPTS TO SURGEON GENERAL BEFORE PUBLICATION

In accordance with the circular issued by the Surgeon General's office on March 27 and May 22, 1918, all manuscripts written by medical officers of the army and intended for publication must be submitted to the Surgeon General's office for approval. Colonel Darnall, executive officer in the Surgeon General's office, has sent a memorandum to editors of medical periodicals requesting that retired officers of the medical department, as a courtesy to the Surgeon General, shall continue the practice of sending to the Surgeon General's office copies, in duplicate, of all manuscripts intended for publication. One of these copies will be filed in the records of the Medical History of the War.

### DUDLEY LEAVES ACTIVE FACULTY

Dr. Emilius C. Dudley, after thirty-seven years as professor of gynecology at Chicago Medical College and Northwestern University Medical School, has retired from the faculty and has been made emeritus professor of gynecology. In commemoration of his long and faithful work for the school, the faculty gave a dinner in his honor, December 12, at which Dr. Archibald Church, Chicago, presided and at which addresses laudatory of Dr. Dudley were made by President Holgate of the Northwestern University, Dr. E. Quine, Dean Arthur I. Kendall, Major Samuel C. Stanton and Lieut.-Col. Nathan William McChesney.

Dr. Frank P. Norbury of Springfield, Illinois, has returned to his home and resumed private practice after having served since August 1, 1918, as acting medical director of the National Committee for Mental Hygiene in New York. Doctor Norbury has served in the absence of the director, Col. Thomas W. Salmon, M.C., (late senior consultant in neuropsychiatry, A. E. F.), and of the Associate Director Major Frankwood E. Williams, M.C., (late in active service in the Surgeon General's office). Colonel Salmon is now on duty in the Surgeon General's office and Major Williams, having received his discharge from the Medical Corps of the Army, has resumed his duties in the office of the National Committee for Mental Hygiene.

The Rev. Mr. Hysen of North English in a sermon preached at the Christian church in which he named the best doctors in Iowa. Dr. Motion, Dr. Oxygen, Dr. Diet, Dr. Rest, Dr. Regularity, Dr. Cheerful Mind, and Dr. Clean Body. We are not informed if they are chiropractors.

The most important building project announced for the year was made public today by plans being prepared for the Sisters of Mercy for an addition to St. Thomas Mercy Hospital, Marshalltown. The building planned will greatly increase the size and capacity of the property and make it practically an entirely new and modern hospital.

### SOCIETY PROCEEDINGS

This is to report the quarterly meeting of the Blackhawk County Medical Society which was held in the club rooms of the Waterloo City Medical Society on April 8, 1919.

The following officers were elected for the ensuing year: President, Dr. J. E. Brinkman; vice-president, Dr. Geo. Hearst, Cedar Falls, Iowa; secretary, Dr. T. F. Thornton; treasurer, Dr. D. C. Huntoon; censor, Dr. E. R. Shannon.

Dr. C. W. Hopkins of Chicago, gave a very interesting address on Traumatic Surgery. The applications of Dr. J. W. Rowntree were read and referred to the board of censor.

The society has planned to have other interesting meetings during the year. T. F. T., Sec'y.

It was announced by members of the Dubuque County Medical Society that for the present Drs. Mary Killeen and I. S. Bigelow would act as county physicians and take charge of any cases which would come under the care of the county physician. For the benefit of the general public it was stated that the county physician's services, when needed, could be secured by calling either of the above mentioned physicians at their homes or offices or by calling Mrs. Ackroyd, superintendent of county poor relief, at the court house.

The board of supervisors, at a recent meeting, awarded the contract for the position of county physician to the medical society. The society at the present have a committee at work arranging a plan for the care for county calls. In the meantime the above mentioned doctors will act as county physicians.

At a meeting of the Henry County Medical Society held April 24 at Mt. Pleasant the following officers were elected: President, C. F. Applegate, Mt. Pleasant; vice-president, C. E. Cook, New London; secretary-treasurer, O. A. Geeseka, Mt. Pleasant; delegates, C. E. Cook and O. A. Geeseka.

The Jasper County Medical Society held its regular meeting at the city library, Newton, April 24. Officers chosen for the year were: President, H. F. Keables, Newton; vice-president, J. L. Taylor, Monroe; secretary-treasurer, S. E. Hinshaw, Newton. Delegates, S. E. Hinshaw and F. E. Boyd.

The Monroe County Medical Society met at the office of Dr. C. J. Lukens May 1. A paper on Sleeping Sickness was read by T. E. Gutch; Diseases of the Abdomen was the subject of a paper by H. C. Eschbach; C. J. Lukens read a paper on Refraction, and J. B. Hungate gave a Report of Cases. A social time concluded the program.

Monthly meetings and increased activities were planned by the Muscatine County Medical Society after a meeting held at the office of Dr. T. F. Bev-

tridge, at which officers for the coming year were elected.

The new officers are: President, Dr. D. Powell Johnson; vice-president, Dr. W. H. Johnston; secretary-treasurer, Dr. W. W. Potter; censor, Dr. E. B. Eversmeyer; delegate to State Medical Society Convention, Dr. R. F. Beveridge; alternate, Dr. W. H. Johnston. A smoker followed the business meeting and refreshments were served.

The attendance from out of town was small because of the poor condition of the roads and inclement weather.

Absence of some physicians in service, and the fact that most physicians were kept busy because of the influenza epidemic and general sickness, has caused several meetings of the society to be postponed. Plans made at the annual meeting however will greatly increase the activities of the society.

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At a meeting of the Polk County Medical Society held February 25, 1919, the following resolution was unanimously adopted:

"Whereas the evidence considered by your committee has shown that the practice of criminal abortion is surprisingly prevalent in our community and is in a large measure being carried on by licentiates in medicine and at least to some extent by members of the society. And, whereas this practice is inimical to the health and social welfare of our city and in contravention to all medical ethics, moral law and religious tenets, as well as in direct violation of Section 4759 of the criminal statutes of the State of Iowa; therefore,

"Be it Resolved, That we deplore the existence of this evil and pledge ourselves to use every reasonable influence at our command for its abatement and to clear our profession from the blot occasioned by these crimes, and to call before the tribunal of our society those of its members whom the evidence shows to persist in such practice, and to submit, if need be, this evidence to the proper authorities for law enforcement, and to the State Board of Medical Examiners, and

"Be it Further Resolved, That the secretary be instructed to transmit a copy of these resolutions to each member of the society, to the Department of Health and Public Safety of the City of Des Moines, to the prosecuting attorney of Polk county, and to the secretary of the State Board of Medical Examiners."

W. E. SANDERS, Chairman,  
J. R. CONDON,  
L. E. KELLY.

(Signed) Committee on Criminal Abortions.

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Polk County Medical Society met at the Chamberlain Hotel, March 26. Dr. John Peck, president in the chair, Dr. T. F. Duhigg, secretary. The program related to certain features of army medical practice. Capt. C. N. O. Lier, surgeon in the 168th regiment and who served with the Rainbow Division in the combat activities in France until he was disabled by gas at Argonne Forest, related the experiences of a

medical officer in a campaign of great danger and hardship. Being always at the most advanced dressing station, Dr. Lier had experiences that he could not write out in full at the time but which will no doubt stick in his mind for years. It was interesting to see the man before us who in the midst of shock and shell could forget himself and devote every energy of a strong will to the care of wounded men. How many lives were saved by the heroic doctor none can say.

Major Glomset who has a happy faculty of presenting a scientific subject in the best English brought before the society the important question of infections as seen not only in army service but also in civil life. But the opportunities which come in a thoroughly organized military service for systematic study far exceeds those in civil practice, and it is fortunate that men of thorough training and of scientific acumen devoted long hours to the investigation of the relation of infections to acute pulmonary diseases. With Major Glomset nothing was left to chance or to presumption but was subjected to the test that John Hunter, more than a hundred years ago insisted on, that we must absolutely know. Major Glomset had the good fortune to work with a team inspired with the same scientific enthusiasm he himself had. Full records of histories, symptoms and physical findings joined with the bacteriology and a great number of autopsies made the knowledge of the pathology and diagnosis of certain forms of acute pulmonary disease complete. Dr. Glomset placed great stress on competent x-ray examinations holding that without roentgenology an important fact in diagnosis was lacking.

This was confirmed by Major Burcham who is a recognized expert in this line of work. Major Glomset was of the opinion that little advancement in the treatment of pneumonia had been made except in the use of vaccines which he believed would be the treatment of the future. The immense increase in knowledge of the etiology and pathology of pneumonia would point the way to better methods of sanitation and prevention. He emphasized at every point in his discussion the importance of cooperation methods in the practice of medicine in civil life and that the experiences of the war must leave an enduring impression on the public and on the profession of drawing closer together in combating disease. It must be clear to every physician that if the great opportunities the war offered in the study of disease had been utilized in an individualistic way but little gain in knowledge would have been accumulated or at least much would have been lost.

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The regular meeting of the San Bernardino County Medical Society was held at Ramona Hospital, San Bernardino, Dr. T. M. Blythe presiding. There was a good attendance, and much interest evidenced in the papers presented.

Dr. P. M. Savage of San Bernardino, who has been at Letterman Hospital, San Francisco, and Bellevue Hospital, New York, taking preparatory training for overseas work, spoke on "The Treatment of War

Wounds," giving his hearers a most comprehensive, instructive exposition of the subject.

Dr. J. N. Warren of Sioux City, Ia., gave a paper on "Plastic Surgery," that all-important subject to the surgeon of today. Dr. Warren is one of the few men in the country engaged in this work, and his experience and knowledge of the subject eminently qualified him for the enlightening dissertation he gave. The importance of plastic surgery in this after-the-war period was dwelt upon, and many important points emphasized.

Dr. John A. Shreck spoke on "Influenza at Camp Rosecrans," telling of the almost complete disorganization of the camp during the prevalence of the epidemic, and of the methods used in its treatment.

Following the papers and discussion, a buffet luncheon was served.

Dr. C. L. Curtiss of Redlands and Dr. P. M. Savage of San Bernardino were elected delegates to the State Medical Convention, to be held at the Hotel Potter, Santa Barbara, April 15, 16 and 17.

The next meeting of the society will be held at the Nichewaug, on April 1.

The first meeting of the Waterloo City Medical Society to be held this year has been called for Wednesday night in the club rooms of the society in the Black building. When the society discontinued the meetings last summer, the members were unable to congregate again in the fall because of the "flu" which kept the doctors busy. Since the epidemic has abated it was decided to hold meetings again.

The doctors who have recently returned from service in the army have been asked to talk. Those who will appear on the program are Dr. A. A. Hoffman, Dr. J. E. Brinkman and Dr. E. I. Dunkelberg. There were seven members of the society who answered the call of country. Drs. Rolfe, Curry, Sage and Jaynes are still with the colors.

It is thought that following the meeting of Wednesday evening the regular schedule of meetings will be carried on as in former years.

## MEDICAL NEWS

Dr. R. L. Latchem of Walnut, will go to Rochester, Minn., to accept a position on the staff of the Drs. Mayo.

Dr. Cady arrived in the states from France and will return to Harris.

Dr. Peterson, of Lamoni, who has been serving with the medical corps for some time overseas, has been promoted to the rank of captain. He has been one of a number of American surgeons serving with the English Army.

Letters received by Leon friends from Dr. C. H. Mitchell state that he is now in Belgium where he is serving as a surgeon with the British forces. Dr. Mitchell had two weeks furlough at Christmas time, and spent Christmas day in Paris. He also visited Nice during the furlough and made a trip through

the Alps. He believes that he will receive his discharge before very long.

Dr. J. P. Redmond who has practiced medicine in Dysart for the past fifteen years has located in Cedar Rapids.

Captain Donald McEldery of Ottumwa who was detailed in July as chief medical officer of the development battalion at Camp Sheridan, Montgomery, Alabama, has been released from service and has returned home to resume practice.

Dr. W. E. Keith of Excelsior Springs, Mo., has been appointed attending eye, ear, nose and throat specialist for the United States Federal prison at Leavenworth. Dr. Keith formerly practiced medicine in Clinton, Ia.

Dr. C. G. Elsworth, a graduate of Marquette University, Milwaukee Class of 1911 has located in Winterset. Dr. Elsworth formerly practiced in the mining camps of Wyoming. After taking a post-graduate course in Chicago entered his new field of work.

Major Prince Sawyer of Sioux City has returned from Vichy, France, where he has been stationed in an American base hospital for three months and will resume practice.

Dr. W. K. Long, of Hampton who enlisted in the medical corps of the army several months ago, returned to the city and has resumed his place as a member of the staff at the Lutheran Hospital, having received an honorable discharge from service. He has been stationed at Camp Custer, Battle Creek, Michigan.

Lieutenant L. R. Dragstedt, assistant professor of physiology, at Iowa University, late of Camp Merritt, N. J., has been honorably discharged, and has returned to S. U. I., to be assistant to Dr. J. T. McClintock, head of the department of physiology. Dr. Dragstedt has been bacteriologist during the war, at Washington, D. C., New Haven, Ft. Leavenworth, and Camp Merritt. His brother Lieut. Carl A. Dragstedt is expected here ere long, also to resume his post as a member of the college of medicine faculty. The brothers have been together in various camps.

Dr. E. E. Stutsman, for ten years a practitioner in Kalona, has moved to Washington, Ia., and has offices in the F. & M. bank.

Dr. E. B. Bush, who has been a physician in Ames since 1908, with the exception of intervals when he has been connected with the medical service of the United States Army announced that he will leave Ames and take up work in the office of Dr. O. J. Fay of Des Moines. Dr. Bush will confine his work to general surgery.

Capt. R. Fred Throckmorton, who has been stationed at Des Moines since war was declared, was recently mustered out of service and has returned to his home at Derby to resume his medical practice in the near future.

Captain C. A. Kearney, Dubuque surgeon, returned to the city. Captain Kearney had been in the service for seven months, four of which were spent in France. He will resume practice here.

Captain E. O. Ficke has returned to Davenport after spending seven months overseas with the medical corps of the 90th Division. The Division went into action September 12 on the St. Mihiel front and was later transferred to the Verdun Sector. From September 12 up to and including November 11 when the armistice was signed Captain Ficke was under almost constant shell fire. He worked in the front line trenches when the drives were on. Dr. Ficke will resume his practice in Davenport, having reopened offices in the Security building.

Dr. A. B. Bowen departed for St. Louis as a delegate to the Mid-Continent Peace Conference which is held February 25 and 26. Dr. Bowen will visit Washington, D. C., before his return.

Captain A. H. McCreight, of the medical reserve corps, has received his discharge from the army and returns to Fort Dodge to resume his medical practice. Dr. E. F. Bech, who was also recently mustered out of the service will go in partnership with Dr. McCreight. They will have offices on the seventh floor of the Snell building.

Dr. John Griffin, who has been located in Chicago the past three years with the exception of the time he was in military training, has returned to Albia and formed a partnership with Dr. Ernest Gutch for the practice of medicine.

Dr. Leland O. Carey, has been discharged from military service from Camp McArthur, Waco, Texas, and has resumed his practice at 1117 Equitable building, Des Moines.

Dr. Lenore Carpenter of 1519 Grand avenue, Des Moines has applied for passports to France where she plans to be a hut worker for the Y. M. C. A. Dr. Carpenter is a prominent club and society woman of this city.

Major D. J. McCarthy, recently cited by the Serbian Government for distinguished services with the Red Cross in that country, is now homeward bound. Major McCarthy sailed from Saloniki on February 28, for Rome, where he will spend several days. He is expected to reach the United States the latter part of the month.

Dr. Frank W. Porterfield is still confined to his home as the result of an injury to his knee, received in a fall on the icy walk several days ago.

Dr. W. H. Thomas of McGregor who was in the army for the past year has been released from service and will return to McGregor.

Captain Geo. A. Plummer of Cresco after eighteen months of service has returned home and will be associated in the practice of medicine with Dr. Geo. Kessel.

Major E. A. Merritt of Council Bluffs who was connected with x-ray service in France has returned home.

Dr. A. D. Smith of Mason City who was assigned to the Siberian service has returned home.

Dr. Samuel Craig Plummer of Chicago having received his honorable discharge from the United States Army, has resumed his private practice and also resumed work as chief surgeon of the Rock Island Railway.

Dr. R. R. Harris of Dubuque will have charge of the surgery department hereafter of the Rosenkranz or Old Sanitarium at Prairie du Chien.

Lieut. C. G. Thomas has returned to Monticello, and has again entered upon his practice as a physician and surgeon. He recently took a course in special clinical work in Chicago, following his discharge from the medical corps of the United States Army.

Dr. Lillie A. Arnett is back in Cedar Falls after a year's work in France as Red Cross physician, most of which time was spent in a refugee hospital at Angouleme, a short distance from Paris. Special honor was paid her by the municipal council of Angouleme just before her departure for home. "For skill and devotion in caring for the sick refugees" they presented her with a vase made in Angouleme. The refugees with whom she worked also gave Dr. Arnett a clock as a token of their appreciation of her services. Dr. Arnett, who has been a practicing physician here for the past ten years, was the organizer and first president of the Cedar Falls Chapter, American Red Cross. She resigned as chairman to go to France not long after America entered into the world conflict.

Dr. L. K. Meredith, former city physician, of Des Moines has been discharged from the army where he held the rank of lieutenant and expects to resume his medical practice soon. Dr. Meredith has been stationed at Camp Lee, Petersburg, Va.

Dr. S. Bailey who has been confined to his home the past two weeks with throat trouble was taken to Des Moines where he will receive treatment at a hospital. Mrs. Bailey accompanies him.

Dr. Carl Aschenbrenner of Pella who has been in the medical department of the U. S. Army since last year, is again located in the rooms formerly occupied by him over Geelhoed's store.

Lieut. Crumpton of Webster City went to France with a mobile unit and was later transferred to a Red Cross hospital. His unit is returning soon, so that his transfer back assures him of an early homecoming.

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The doctor should always have an hemostatic in his case. There is liable to be need for it any minute. Thromboplastin solution (Armour) is a specific hemostatic and acts promptly. Thromboplastin (Armour) is made from the fresh brain of kosher killed cattle. There is a certain amount of that blood clotting thing in an animal's brain and this is not used up when the animal's throat is cut. It is used up when an animal is killed with a hammer. In the Armour laboratory kosher killed cattle brain is used in making thromboplastin. That's why thromboplastin solution (Armour) works promptly.

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Advertising is simultaneously read in hundreds of towns, and by thousands of subscribers, who could not be reached by salesmen.

## DEATHS

A telegram received by Mrs. Frank Fox from the war department brought the news of the death of Dr. Frank Fox, all his life a citizen of Waucoma, and up to the time of his death with the American army in France. Dr. Fox was one of the best known doctors in northeastern Iowa.

Dr. Reuben A. Dunkelberg died at his home, 805 Walnut street, Waterloo, March 7, 1919. Although he gave up the practice of his profession because of ill health ten years ago, his condition did not become serious until he suffered a stroke of paralysis in April, 1917, and a second stroke in July, 1918, since which time he had been confined to his bed.

Dr. Reuben Allen Dunkelberg was born in Tonawanda, N. Y., July 1, 1854. He graduated from the school of medicine at the University of Michigan, Ann Arbor, and came to Iowa, in 1881, locating at Denver. He practiced medicine at Denver until his removal to Waterloo in 1898. He continued his profession here until his retirement ten years ago, being associated with his brother, Dr. E. E. Dunkelberg, now of Hudson. Another brother, Dr. B. C. Dunkelberg, is a practicing physician at Sumner.

In 1883, he was united in marriage to Florence Spaulding. Besides practicing medicine, Dr. Dunkelberg was interested in the real estate business. He built several homes and business locations, among them being a business block on Fourth street west. At the time of his death he was a director of the Waterloo Bank & Trust Company.

Dr. J. V. Brann of Knoxville died at his home, March 11, 1919. Dr. Brann was born near Wilmington, Ohio, Oct. 8, 1854, received his preliminary education at Lebanon College and his medical education at Valpariso, Indiana and the Cincinnati Medical College, Ohio. He came to Knoxville in the spring of 1881 where he practiced until about a year ago when failing health caused him to retire from active practice.

In 1884 Dr. Brann married Miss Martha Boydson who with six children survives him.

Dr. W. B. Callender, a graduate of the Drake University Medical School (College of Physicians and Surgeons) class of 1888, died February 5, 1919 at Concordia, Kansas. After graduating at Drake he practiced one year at Greely Center, Nebraska and located at Stockton where he practiced medicine thirty years. Dr. Callender was born December 21, 1855 at Belvidere, Ill. A year later his family moved to Chickasaw county, Iowa, where he lived on a farm until he entered the state university for his preliminary education.

Dr. Henry H. Center, formerly of State Center, but more recently of Marshalltown, a homeopathic physician, died March 16, 1919 at the age of eighty-one.

Dr. Center graduated from the Cleveland Homeopathic Medical College in 1870.

## MARRIAGES

Dr. M. B. Guthrie of the Medical Corps to Miss Mildred Bust. Dr. Guthrie is now stationed in Boston.

Dr. P. H. Letourneau of Waucon was recently married to Miss Minnie Myrtle Jones of Waucon.

## BIRTHS

Dr. and Mrs. Walter Mendenhall formerly of Des Moines, now of Hanover, N. H., a son. Mrs. Mendenhall was formerly Dr. Jean Clements of Des Moines. Dr. and Mrs. Mendenhall are graduates of Drake University School of Medicine.

A son to Dr. and Mrs. Lawrence E. Kelley of Des Moines.

To Lieutenant and Mrs. Claud Rasmussen a daughter.

## BOOK REVIEWS

### PRINCIPLES AND PRACTICE OF OBSTETRICS

By Joseph B. De Lee, A.M., M.D., Professor of Obstetrics at the Northwestern University Medical School. Third Edition, Thoroughly Revised. Large Octavo of 1089 Pages with 949 Illustrations, 187 of Them in Colors. W. B. Saunders Company, 1918. Cloth \$8.50 Net.

The third edition of this great work is before us. The author informs us in the preface that every chapter has been reviewed with care, "but little pruning was found necessary." In some instances a new evaluation has been given to subjects which at the time of the publication of the second edition were open to discussion, particular reference is made to the Abderhaldin pregnancy reaction and the relation of the endocrine glands to gestation. Commencing with the first chapters including the anatomy, development of the ovum and the physiology of pregnancy we are impressed with the clearness of the text and the illustrative value of the figures and plates. Sections 2 and 3 which relate to the physiology of labor and the puerperium are worked out in a way to fill the mind of the reader with admiration and contribute to an understanding of nature's methods of conducting the great function of child bearing. A clear knowledge of these physiological facts leads to the practical consideration of the treatment of labor. The chapter on the conduct of labor carries us through the several stages and points out what may be done to bring about a successful termination with the greatest comfort and safety to those concerned. The care of the child receives proper consideration. We are always mindful of the accidents

of pregnancy and child birth or the pathology of pregnancy, labor and the puerperium which may change the picture sadly and will test to the utmost our knowledge and resources. We may recall many trying experiences. The author has devoted the greater part of this large volume to the consideration of these distressing facts and we believe that the mind of the practitioner of obstetric medicine would be more at rest if it was stored with the knowledge to be derived from the study of this section of the book before us or of other volumes of like character. It is not enough to read up the subject when we are confronted with these accidents, we should be prepared beforehand.

Part three is devoted to Obstetric Operations which we should likewise be prepared for. We have been cognizant of grave disaster from lack of preparedness and thus write with some feeling on the subject, and cannot refrain from urging the study of the work before us, or one of a similar character. The scientific character, the clear and forcible English, the excellent illustrations, and the fine mechanical make-up of the book strongly impresses us. We have not attempted to consider any subject in detail only to present the merits of the book in a general way.

#### THE MEDICAL CLINICS OF NORTH AMERICA

September, 1918. Published Bi-Monthly by W. B. Saunders Company. Philadelphia and London. Price \$10.00 Per Annum.

The number is made up by a group of papers from various military camps and is full of interest. The first paper is by Major General W. C. Gorgas on "Clinical Research in United States Army Base Hospitals." It is an outline of research hospitals, in various camps of the United States in war times, with an abundance of clinical material. Historical observations and references are made of similar work in England.

There is a voluminous paper on Pneumococcus and Streptococcus Infections by Major Walter W. Hamburger and Major Herbert Cox. This communication involved much study and observation and is worthy of close study. Dr. W. G. MacCallum presents a study of the Pathology of the Streptococcus Pneumonias of the Army Camps. The paper by Major Edward H. Goodman will be interesting to draft board examiners, and relates to heart examinations. It is to be regretted that the data contained in this paper could not have been made available much earlier, but no such opportunities have occurred before. There is also an extremely important paper by Lieut. Morris H. Kahn on Paroxysmal Tachycardia in Soldiers, with report of Clinical Polygraphic Studies. All the papers in this number of the clinics are of great importance; we can only mention a few not because they are better than others, but because a great field of opportunity has been opened up to us by men of great scientific abil-

ity, skill and knowledge in circulatory and pulmonary diseases.

We must mention one more paper; by Major Harlow Brooks on Neurocircular Asthenia, which discusses a subject but little known to most of us. This number of Medical Clinics is entitled to the first place on the shelves of our libraries for ready references in the study of diseases, but little understood until now.

#### CLINICAL MICROSCOPY AND CHEMISTRY

F. A. McJunkin, M.D., Professor of Pathology in the Marquette University School of Medicine; Formerly an Assistant in the Pathological Laboratory of the Boston City Hospital. Octavo Volume of 470 Pages with 131 Illustrations. Philadelphia and London: W. B. Saunders Company, 1919. Cloth \$3.50.

This new book considers the subject of practical laboratory examinations and diagnosis from the standpoint of the laboratory worker, rather than from the standpoint of a person who is primarily a clinician. It differs from other well known books on clinical laboratory diagnosis chiefly in that it is more comprehensive, dealing with the organization of the laboratory, the making of post mortem examinations; the staining of tissue preparations, as well as the usual examinations of blood, urine, gastric contents, etc. It does not present the ordinary clinical diagnostic methods, aside from tissue work, as well as some of our larger works on the subject do, nor does it give as much attention to discussion of clinical interpretations. The methods presented are practical; the book is well written and the illustrations are very good.

Physicians who do considerable of their own laboratory work and laboratory workers in general who desire a work which brings together in a single volume of moderate size practically all of the laboratory procedures which are likely to be met with in practice or the usual laboratory work, will find the volume an excellent one.

Henry Albert.

#### COMPENDIUM OF HISTO-PATHOLOGICAL TECHNIC

Emma H. Adler, Formerly Technician Pathological Laboratory, Presbyterian Hospital, New York. First Edition, 96 Pages. Paul B. Hoeber, Medical Publisher, 67-69 E. 59th St., New York. Price \$1.25.

This small volume represents a compilation of methods of technic used in the pathological laboratory of the Presbyterian Hospital in New York, and is intended by the author as a brief and handy account of methods for the use of students untrained in laboratory work. It is not designed to be exhaustive nor to take the place of some of the larger standard works on the subject. The author has succeeded very well in presenting the essentials of histo-

(Continued on Adv. Page xviii)



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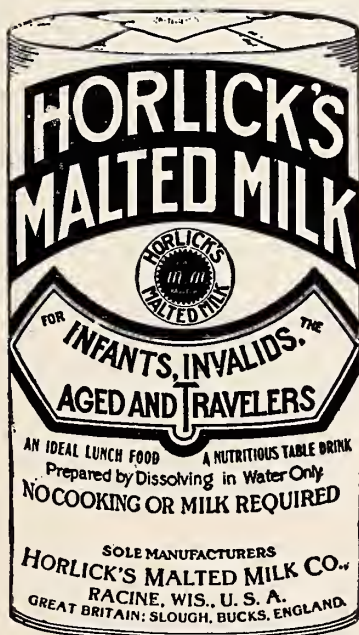
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## BOOK REVIEWS

(Continued from Page 174)

pathological technic in a clear manner and in the form of easily followed outlines.

Inasmuch as most students who do not desire to specialize in laboratory work do not secure one of the larger volumes dealing with pathological technic, the little work in question ought to be found very useful and should find a place in the collection of books of many students. In looking over the volume one frequently wishes that the author had not been so brief. In many places no reference is made as to what a given stain is for, and in what way the tissue is stained, as for instance, the reference to Marchi's stain at the bottom of page thirty. The book will be found very useful by many students.

Henry Albert.

## THE SURGICAL CLINICS OF CHICAGO

Volume II, Number 6, December, 1918, with 63 Illustrations. Published Bi-Monthly by W. B. Saunders Company. Price Per Year \$10.00.

There are several interesting clinics in this number. Dr. A. D. Beven presents a case of senile gangrene of the foot, presenting the usual history of the gangrenous process commencing in the big toe and extending; for which the leg was amputated at the knee joint. Dr. Beven calls attention to the generally observed fact that a lower amputation means a sloughing of the flaps; that although the popliteal artery may be pulsating, there is generally a blocking at the division into anterior and posterior tibials.

Dr. Thomas J. Watkins describes an efficient and simple operation for perineorrhaphy, an operation which the author observes is not generally well done.

Another valuable discussion is by Herman L. Kretschinger on Hematuria and Purpura. The subject is reviewed in considerable detail and in a way to impress the understanding of the reader. The faucial tonsil comes in for a detailed discussion by Dr. George E. Slambaugh and is altogether interesting and profitable to the throat surgeon.

During February the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion with New and Nonofficial Remedies:

## Non-proprietary Articles:

Biologically Reactive Food Proteins.

Merck and Co.:

Tannin Albuminate Exsiccated, Merck.

E. R. Squibb and Sons:

Cow's Milk Allergens, Squibb.

Egg Allergens, Squibb.

Wheat Allergens, Squibb.

Takamine Laboratory:

Neoarsaminol, 0.15 gm. Tubes.

Neoarsaminol, 0.3 gm. Tubes.

Neoarsaminol, 0.45 gm. Tubes.

Neoarsaminol, 0.6 gm. Tubes.

Neoarsaminol, 0.75 gm. Tubes.

Neoarsaminol, 0.9 gm. Tubes.

## DOBELL'S SOLUTION

Somebody (God forgive him!) recommended spraying of the nose and throat with Dobell's solution as a prophylactic for Spanish influenza. Apparently every newspaper in the United States has printed this suggestion.

Dobell's solution is of such slight value as an antiseptic that we feel it our duty to warn the profession against putting their faith in it. As every doctor knows, this is a weak alkaline solution, containing borax and bicarbonate of soda, in a little glycerin and much water, rendered feebly antiseptic by the addition of three parts per 1,000 of phenol; in other words, it contains  $\frac{1}{3}$  of 1 per cent. of carbolic acid. The only value a solution of this kind could have would be for the removal of mucous secretions from the nose. For this purpose it might have some slight merit.

As an antiseptic, however, Dobell's solution is a joke. Such a solution is not equal in antiseptic power to one made by dissolving one Chlorazene tablet in five quarts of water.

When people are using antiseptic solutions to prevent a terrible disease like Spanish influenza, they want something which is really of value. It is criminal to advise them to put their faith in a preparation like this, when really powerful germicides like Chlorazene can be obtained at almost any drug store.

The Physicians' and Surgeons' Adjusting Association, of Kansas City, wishes to call the attention of physicians in this field to the fact that they do collect old accounts. This Journal has accepted their advertisement, which will be found on another page of this issue, and any business transacted with this company will no doubt be entirely satisfactory to those who have dealings with them.

The U. S. Public Health Service is putting forth the most strenuous efforts to lessen venereal disease, and is enlisting the assistance of all physicians and druggists. The various state boards are cooperating most actively. The New York State Board of Health, for example, has established venereal clinics in the larger cities and towns and is conducting post-graduate courses in New York for the training of medical men to handle the work in these clinics.

In the belief that the syphilis situation could be handled better if treatment for the general public were made possible, Col. H. A. Metz, of the H. A. Metz Laboratories, New York, is offering to the government and to the institutions cooperating with the U. S. Public Health Service Salvarsan and Neosalvarsan at practically cost. Believing, as he does, in humanitarianism in business, he has extended these same low prices to all state and municipal institutions treating the general public, so that there may be no further excuse why the poor should not get the benefit of the best methods in the treatment of syphilis.

# The Journal of the Iowa State Medical Society

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No. 6

## ADDRESS OF PRESIDENT\*

MAX E. WITTE, M.D., Clarinda

*"Salus populi suprema est lex"*

First and deeply, I wish to thank you, my colleagues of the Iowa State Medical Society, for your confidence and esteem as shown by your calling me to the highest honor within your gift. It is indeed no slight distinction to have presided over an august body of men so above the average and so representative of science and the highest ideals of the mankind of today. I appreciate it sincerely and when the evening shadows lengthen, and my weary feet are entering on that darkening sunset land, it will be a comfort and a consolation to remember that once upon a time, during a momentous year of stress and strain of bloody strife and blessed peace, it was my happy lot to preside over the deliberations and activities of the Iowa State Medical Society.

Then I hail the opportunity to unburden my mind of a bundle of problems before a larger and more competent audience to understand and help wrestle with them. Not one of these problems is new. Did not Solomon in his wisdom say, "There is nothing new under the sun"? In fact they will all greet you as old acquaintances, with whom you have yourself struggled for a solution, yet did not even achieve a draw. But they are as grave, as insistent, as importunate as ever, and if we would not prove craven and recalcitrant to duty, we must meet them in behalf of our race and ourselves. The best interests of our people demand that they be solved—fully if possible; if not possible, partially at least.

The first great problem relates to Eugenics. The one great object of care—of study—of wise activity for betterment, given to man, is man himself. "*Mens sana in corpore sano*;" is still as it has been throughout the ages, the one great *desideratum*. The two great motives underlying any activity—the instinctive mainsprings of our being are: the preservation of the individual and the perpetuation of the race.

The principal business of this generation is to prepare and promote the next. This is right, undoubtedly right. Then what can even approximate in fundamental importance, than that those who come onto the stage after us, get started right? You and I, and our neighbor across the way, plan and worry, toil and strive that our son may be well equipped, nay better equipped than we have been, so that the world's work by his aid may be pushed further than we could push it. Instinctively we all do this for our offspring, inspired by the hidden forces driving our race onward and upward to ever higher levels. But are we as careful as we might have been to give him (or her as the case may be) the right kind of parents? The right kind of stock inheritance? Have we tried to bequeath those traits and characteristics which in after life spell strength, order, stability, health and ability? Have we endeavored to eliminate from his inherited constitution the factors which make for limitation, weakness, degeneracy and failure? Someone has said, that we care more for the pedigree of our domestic animals than we do for that of human beings. This while apparently true, it is apparently only. I am an optimist and fully believe, though I may not be able to demonstrate it to you, that there exists an all pervading trend or tendency, a law set by the Power back of all nature to impress its own upward direction, whereby the fit mate with the fit in the main, everything else being equal. That there are many, very many exceptions whereby the unfit has its innings, is only too true. The law of propinquity here being adverse. As a corollary to the foregoing, there is another trend whereby the unfit, the degenerate are drawn sexually to their own kind. Hence, the frequency of degeneracy and the burdens thereupon depending in our midst.

By degeneracy I mean that involutinal counter current in the attaining, expanding stream of life whereby those involved by inheritance go down to lower levels. In the human family it is shown more particularly by weakness, instability, inadequacy of organization and defect of the central nervous system. Degeneracy is constitutional and

\*Delivered at the Sixty-Eighth Annual Session, Iowa State Medical Society, Des Moines, Iowa, May 8, 1919.

is transmitted by heredity as a recessive factor, strictly according to Mendelian law. That the various forms of "family" nervous disorders are akin and simply different phases of a basic constitutional weakness, can be shown by that members of a degenerate family say, are cared for by the state at the hospital for the insane at Clarinda, at the institution for feeble-minded at Glenwood, the industrial school at Eldora, and forget it not when you talk to your lawyer friend, at the penitentiary at Ft. Madison.

This matter of being "well born" being of paramount importance to us, to those who come after us, to all that is best and worth while in all the days of the future, permit me to quote from a previous work of mine on the subject; remember however, that insanity, feeble-mindedness, inclusive of morosity, constitutional nervous diseases, such as epilepsy, periodical alcoholism, hysteria; recurrent delinquency and a multitude of disorders and subnormalities, are simply phases of degeneracy and depending on a transmissible and constitutional inferiority of neuronic organization.

"Let us take insanity on a constitutional basis, which comprises two-thirds of all cases, on an average, the other third depending on accidental, incidental factors, for its causation, with no tendency to hereditary transmission of the disorder. That is, unless the principal causative factor is itself transmissible as a unit character; for instance the hardening of the arteries, arteriosclerosis so-called, underlying the development of senile conditions, amongst others, senile dementia. But for our purpose we can assume: That the tendency to insanity is not conveyed to offspring, in those cases of insanity which have not originated on a constitutional foundation; in which there is no stock or family defect.

From what has been said, and remembering that insanity is recessive, we may deduce results of various matings as follows:

1. In the union of a normal individual with a normal individual, the determiner is "duplex," and only normal children issue. These will not become insane, excepting from extraneous causes. The members of such a family are positively "homozygous," to employ a term coined to express the ability to transmit the parental trait unchanged. Insanity appearing in such a family should not be a bar to marriage of unaffected members.

2. A normal person, mating with one insane on a constitutional basis, yields apparently normal offspring; the determiner is simplex. The individual resulting from such a union is "heterozygous," that is, capable of transmitting to off-

spring both the dominant and recessive trait; in our instance, both normality and insanity, or rather the tendency to insanity; for insanity as such is not transmitted. The bequeathal to the grandchildren of the original couple is in accordance with cases 3 and 4.

3. From the union of a normal person with one apparently normal, that is heterozygous, on an average one-half of the children will be normal, and one-half apparently normal, but capable of passing the defective constitutional strain on to the next generation, in accordance with case 4.

4. The member of a hereditarily encumbered family, apparently normal but able to convey the defective strain, mating another individual of similar constitutional make-up, has children on the average as follows: One normal, two apparently normal but capable of passing on the defective strain to the next generation, and one defective in nervous stability, and who under favoring conditions will become insane, or otherwise affected nervously. This kind of union is perhaps the most important from an eugenic standpoint. It, to my way of thinking, is the crux of the whole situation.

Herein lie the most formidable difficulties in the way of racial regeneration. It presents the gravest problems for the solution of the future. That this is so, a little reflection will plainly show. How, indeed can we prevent or minimize the mating of persons apparently normal, and even possessing desirable qualities, yet able to endow a certain number amongst their children with weakness and defect, when there is nothing to distinguish them from the normal, and only the actual appearances of the disorder in the children reveal the heterozygous condition of the parents? It is comparatively easy for the stock raiser to eliminate undesirable qualities from his stock, since the generation of our domestic animals is of only a few years, instead of scores, as in the human family.

Here also belongs the discussion of consanguineous marriage. If constitutional tendency to insanity or other nervous disorder exists in a family, it is obviously wrong to have members of it mate. The results will probably be unobjectionable once, undesirable so far as the race is concerned twice, and altogether disastrous once, on an average in four children. Laws against the marriage of cousins in a normal family, one without undesirable traits, are foolish.

5. The union of a heterozygous persons, one apparently normal, but capable of transmitting the defective strain, with one openly defective, while apparently similar to case 2, (and at the

first flush, we cannot distinguish between the cases) is much more deplorable in its results.

One-half of the children will be apparently normal, but capable of transmitting the defective strain. The other half will become openly deranged, with the chances very slight for escaping arrest or breakdown in the nervous system. For the good of our kind in the future, such matings should not be. But even in these matings hope is not entirely excluded.

In the grandchildren in case 2, one at least out of four should be normal; and in case 5 one in eight. We could start with a community, the children of such objectionable unions, and in a few generations have a dominant aristocracy of safe and sane, because normal individuals.

6. Absolutely bad, hopeless, and from the racial standpoint, disastrous, is the union of the openly defective with his or her own kind. Here the absence of the determiner is double, and we may call the deficient individuals negative homozygotes. Their offspring is like them, for they cannot bequeath what they have not. The children of parents each insane, on the basis of an inherited defective constitutional strain, under conditions which leave the normal individual unharmed, break down and become insane, or otherwise openly reveal weakness or inadequacy of the central nervous system. The children of feeble-minded parents are feeble-minded.

Such matings should be rendered impossible, or at least harmless, so far as procreation is concerned. The active social movement for the betterment of our kind in our midst is engaged in this."

Of late years, considerable prominence has been given to the "Moron" and to the wayfaring man, it might seem that he is a new product or at least a new discovery. But this hasty reading is wrong: for the moron has always been with us, and alas is more than likely to stay with us a good long while, and contribute as he has in the receding days of the past, his share as the principal part of the "White man's burden."

Morosity is feeble-mindedness, nothing more, nothing less, and like it is based on inherited constitutional inferiority of the nervous system. What has been said of the feeble-minded, holds true of it. To be sure, it is the least below the normal, and to the superficial observer, the moron does not appear different from the normal individual. But a more careful observation and analysis of the moron's character reveals that in mental development he has fallen short of normal stature. He is more particularly deficient in the higher regions, the normal mind attains in its expansion; more especially in judgment, self-con-

trol, moral sense and guiding ideals; all of which in the normal individual we admire and esteem as the essentials of good character. The moron is a creature of impulse and is moved to and fro by carnal and sensual promptings. He drifts along lines of least resistance, and has no heed of the morrow. You are all more or less acquainted with him, since to his tribe belong the incompetent family in your neighborhood: the improvident family which lives from hand to mouth, which during the mild reaches of summer has no care for the winter; which with every help and opportunity is unable to raise itself above its ancient tribal level. Utterly reckless of the future, without restraining principles or ideas, following only present desire, the moron mates with one of his own subvalent makeup and breeds freely and abundantly. He knows nothing about birth control and cares less. Even if he knew he would not bother about it, but let the future and other people look after his progeny. From this class more particularly prostitution and chronic relapsing criminality draws its recruits.

Several years ago the commonwealth of Massachusetts authorized a committee to thoroughly investigate the mental status amongst other things, of the prostitute within its borders—Result: More than 60 per cent. of the women were proven to be feeble-minded. I have no doubt something similar would be found in the male engaged in this peculiar trade.

About the same time an exhaustive examination was made in Michigan involving the inmates of jails, almshouses, workhouses and in fact all places where tramps, vagrants, delinquents and minor criminals were detained. Practically two-thirds of the inmates of these homes for human flotsam were found to be below normal mental stature and weak minded. Inquiry in our own or any other state of the Union, will reveal similar conditions. Our own great state with great care and enormous expense maintains amongst others, some dozen charitable and correctional institutions with the principal purpose of lightening and diminishing the burdens laid upon the community by the products of an adverse heredity. Besides the damage done to the material resources of a community by degeneracy, the misery and woe, the mental and moral injury following in its wake is beyond calculation. And what is true of us, is true of our great country at large. Our national government in antebellum days took measures to keep the degenerate, the "undesirable citizen" from abroad, from coming into our country. For some time hereafter these excluding measures, as a matter of protection may require strengthening and most rigid enforcement. But what are we

doing to keep the degenerate, the undesirable citizen from coming in from within?

The next great problem, after pruning and lopping off the decadent branches with central dry rot, from the tree of life in our midst; is to keep the others sound and well. And here we meet giants in the way. At the very fountain of life sit like dark spirits of immortal hate two malignant influences, fouling and poisoning our race at its very source? Alcohol and syphilis. While we strive, struggle and strain that the generations to follow us may be better, and less handicapped than we are, these insidious influences are at work in our midst to sow the seeds of another degeneration of disease, of defect and deficiency, of death and disaster—of misery and woe. It is quite true as you may say; that alcohol in these momentous times the world over has apparently sustained a severe set back, but it is apparently only. Do not forget; "John Barleycorn" is still very much in the ring. He may be disfigured and with discolored optics, but he is not down for the count. John Barleycorn, the comfort and solace of the submerged, of the defeated, of all those who have lost and been cast aside in the struggle for existence, of the maimed and sore in our social makeup, is still undethroned king. His influence on the germ-plasm is pernicious, his power as a developer of potential into actual degeneracy, as a breeder of deterioration anew, is still undiminished and second to none. Permit me to quote one who has given this subject profound research:

"In the course of heavy and prolonged abuse of alcohol, aside from the effects on brain and psychic life, more or less extensive changes in the various organs of the body supervene; especially are the blood-vessels involved comparatively early. In this manner, a grave invalidism is reached, from which restoration very slowly and only to a certain degree is possible. Especially fateful becomes this general disease process, for the reason that it is capable of exercising a most pernicious influence on the off-spring. Doctor Denne for the closer illumination of the subject, examined in the course of twelve years the children in two groups of ten families each. In the first of these groups the parents used alcohol regularly—in the other group the parents were abstinent. From the alcoholic group sprang altogether fifty-seven children, of these only ten or 17.5 per cent. were normal. The remainder suffered various disorders indicative of degeneration, such as malformation, dwarfism, chorea, epilepsy and grave feeble-mindedness. Twenty-five of the children died within the first months of life. But of the non-alcoholic group issued

sixty-one children. Of these, only five died; four later on suffered disease of the nervous system, and two defect of development. The other fifty children of the group or 81.9 per cent. were and remained perfectly sound."

These experiences show most conclusively that chronic alcoholic poisoning not only destroys the individual, but also stamps on the coming generation the beginning of degeneration. Laboratory experiments with guinea pigs verify this.

As to the evil role, syphilis the other racial poison, plays in the destiny of many of our human family; there is no occasion to dwell on it in this assembly, only too familiar with its ruthless power to afflict, to ravage, to destroy. It with other venereal disease is indeed spawn from Gehennas; its fruition death and fadeless woe. One of its fiendish forms, comes more especially under my observation: Paresis—Paresis is a diffuse brain syphilis invading the central nervous system generally, and is manifested by progressive loss of mind and motor control. Its mortality is 100 per cent. and it rings down the curtain on an average in two and one-half years after the beginning of the morbid process. It selects its victims without regard to inherited constitutional weakness of the nervous system and by choice it picks out the brain worker, the man of towering mental ability and vigor so that in truth it may be said this foul slimy death loves a shining mark. Each case of paresis you see is a living tragedy, a human being so full of promise in the flowering has blighted before culmination in achievement. Our regret is all the keener, in that this sacrifice to evil influences in our midst is altogether unnecessary. That paresis is a negligible quantity since you do not personally come in contact with it very frequently, is by no means true. It is altogether too frequent and becoming more so in spite of every and all measures employed to check it.

How widespread the crimes of syphilis in other directions including progeny is well known to you. It is perhaps only equaled by its venereal twin—gonorrhoea. The problem of freeing our human family from this evil brood is broad, deep and difficult and beset by vast but I hope, not insuperable obstacles. Some score of years ago a number of us in this assembly, at all times, early and late, talked and wrote about the perils wrapped up in venereal disease. A few of us even contended and insisted, that venereal disease, is contagious disease par excellence, and as such should come under quarantine; rigid, inexorable quarantine. In many quarters we scarcely received a respectful hearing; the vast multitude barely blinked and went on. A few stopped to

argue—and the arguments were strange and specious. Perhaps the most pertinent and common of these were: Quarantining venereal disease, will cause hardship to those having acquired it innocently. So does smallpox. Again, the victim would not go to a physician, but would either resort to irregular and ill-advised treatment or go untreated. There is some merit in this counter argument but it would not hold were the victim fully informed as to the perils involved. After much agitation and a rather lukewarm campaign against the so-called "Black Plague" the mountains labored and brought forth a ridiculous small mouse. Namely we obtained a pale flimsy, emasculated law on our statutes, whereby venereal disease is reportable, faintly and in a low breath. What has this measure accomplished? What has it done to control this menace? Are you able to see or do you believe that the evil has been lessened even in the slightest degree? Do the findings of our exemption boards and the examinations at our training camps show anything of the kind? Our national government has found this particular evil so great, that it took its control in hand, and proposes to continue in this, and to instruct the public in anti-venereal measures in the future as it has in the recent past. One of the good things derived from the great world's war is the waking of the people to the dangers from venereal disease. And this is very much worth while.

From what has been said, we can readily see that the two-fold problem of the racial poisons; alcohol and syphilis is intimately and fundamentally involved in and connected with the greater one of degeneracy.

What shall we do to eradicate these cankerous undermining sores in the body politic? Adopt a "watchful waiting" policy? Do you consider it good practice to sit down complacently to watch a cancerous nodule grow, and reach out and destroy? What then? Enact arbitrary "fiat" laws to eliminate, annul and abrogate these evil influences? When Mars and Venus meet, Minerva and official Jove are alike forgotten. Laws to be effective depend upon the intelligent support and will of the people—and without this they are failures. The people therefore must be instructed so that there may be true, full and adequate information on these momentous subjects. It is in education then, that our hope lies. This education aside from forming the basis of effective law, will also more than any other influence, be the directing, restraining and protecting guide to the individual. And with this education our profession, yours and mine, my dear colleague is charged. Why?

In the first place, this work is laid upon us by the terms of our degree. *Medicinae Doctores*: Teachers of matters medical. Then we are best qualified to do this. We are most enabled to look behind the scenes, to know and to advise. Again "Noblesse oblige." Our hallowed calling, coming nearer to pure altruism than any other, makes it an honorable duty—which we cannot, which we do not want to shirk. When humanity calls; the doctor consecrated to unselfish service, is the first to answer the summons, as he always has, and always will.

This educational drive to be effective, must be more than state wide: It must be national and involve our people from ocean to ocean, or better still it should extend over the whole earth. We can scarcely hope that it can be made universally extensive, but as an ideal to be striven for it should comprehend the civilized peoples of Mother Earth. However, the least we can be temporarily satisfied with, is its thorough, unrelenting, unfailing, and dauntless promotion amongst and within our own people. To be effective, efficient and even somewhat adequate the work must be wisely and enduringly organized, must have a head with wide and deep authority. This can best be accomplished by the chief of this great work for humanity, to have a seat in the president's cabinet as Secretary of Health. It goes without saying that it should be a medical man of such mental stature that the vast issues entrusted to his hands may not suffer but are certain to be enhanced and pushed to all possible completion and fruition. This physician in the president's official family, besides this educational campaign should also be charged with all other matters medical intimately or remotely pertaining to the health and welfare of our people, such as sanitation, medical education, including a uniform licensure of the medical practitioner which would be valid everywhere within the confines of our great country. After the vast historical occurrences of the past twenty years we are a Nation spelled with a big "N" and it is high time that we lay aside provincial spirit and provincial ways. The knowledge and skill required of the doctor should be the same, whether he lives and labors in New York or in Arizona. Then why not make a certain standard of attainment obligatory and if he is of sufficient and satisfactory accomplishment, why not certify to this by a license valid everywhere within our country over, from Maine to California?

A complete practical solution of all these various problems brought again to your attention can scarcely be expected for tomorrow. The factors are too many, too profound, too widely and

intricately ramifying. Nevertheless it is our duty, a duty laid upon us by the spirit of our profession to keep these matters in the limelight of our attention, so that the interests and good of our people may be advanced to the limits of possibility.

## MEDICAL EDUCATION IN IOWA

D. S. FARCHILD, M.D., F.A.C.S., Clinton

### PART THIRD

Thirty years elapsed from the appearance of Dr. Muir, an army surgeon on the Iowa side of the Mississippi, to the period when the first institution for teaching medicine was organized in Iowa. Dr. Muir was not particularly identified with civil practice, but to some extent with territorial affairs. During the period referred to, a small number of well trained physicians came to Iowa and in time became impressed with the idea that the time must come when some provision for the education of medical practitioners should be made to meet the growing needs of the Iowa country. Medical schools had as yet only reached a rudimentary stage of development and young men of very limited general education were admitted to their courses. The early schools were organized for the laudible purpose of preparing men to supply certain recognized needs in a sparsely settled country.

It may be true that at a later period, schools were organized for more selfish purposes and that the personal interests and ambitions were better served than the general public. Student fees, and the title of professor had attractions no doubt, and were responsible for the multiplication of medical schools which came later.

The above criticism does not apply in any great degree to the pioneer Iowa medical college, which finally found a permanent home in Keokuk and which was destined to become the medical center of Iowa for many years.

The College of Physicians and Surgeons of Keokuk was organized in La Port, Indiana, in 1846. Who constituted the first faculty we do not know except that Dr. W. W. Mayo who later became so widely known in Minnesota, was professor of chemistry. In 1847 this school was moved to Madison, Wisconsin, and became the medical department of the University of Wisconsin. For some reason not clear now the school migrated to Rock Island in 1848 to become the "Medical College of the Upper Mississippi." In 1849, Davenport offered greater inducements and was the center of medical education for one year.

For some reason at the close of the 1849-50 session at Davenport, the school finally moved to Keokuk to begin its first session in November, 1850, where it remained for a period of fifty-eight years. In 1908 the Keokuk Medical College merged with Drake, which in turn, five years later merged with the Iowa State University, School of Medicine.

The most interesting period in the history of this pioneer institution of medicine is in its early days at Keokuk. The city of Keokuk in itself has a history unique and interesting in Iowa, quite different from the rather common place and uneventful settlement, growth and development of other cities in the state.

The medical student of today has but small appreciation of the medical college of his father and grandfather. Today the microscope, the test tube, the clinical laboratory and the clinic room, the x-ray, electrocardiograph, phthalin and other tests for kidney functions, the blood-pressure tests and many other things occupy the students attention for four years, after a preparatory course of equal length. In the fathers, or it may be the grandfather's day, eloquent lectures on the liver or on the action of opium would hold the attention of the student for the hour. Today after the professor has applied all the instruments of precision, there is still room for doubt; not so then. After an eloquent discourse on what could not be seen or felt, but by a process of logical reasoning from an unknown premise, the professor could with refreshing certainty, present the exact condition and formulate a combination of drugs which rarely failed to find the diseased tissue and work a happy result.

Let us listen to the introductory address of M. L. Knapp, M.D., president and professor of materia medica and therapeutics in the Medical College located in Rock Island, Ill. (A verbatim copy, not a punctuation mark changed.)

"No honor could be more congenial to my feelings, for since enduring some fifteen years of toil in the profession in Illinois and having held communication with several medical schools to find myself at last in this 'El Dorado' of the flowery West, on the banks of a lovelier than the Blue Moselle, presiding as acconcheur at the birth of a new institution of medical learning, pure, promising and undefiled by perfidy, comely in every feature and limb, matchless, indeed, at her birth, is, to me, a source of more unalloyed happiness than I could enjoy were I elevated to the chief magistracy of a state.

"The faculty herein associated for the purpose of teaching medicine, derive their powers, privileges and appointments from the Madison Medi-

cal College, an institution chartered by the sovereign State of Wisconsin and possessing as full and ample powers for conferring degrees in the profession of medicine as any institution in the United States. A power is granted in said charter to create a branch, which power was exercised by the incorporators at their meeting for organization, and the branch was located at Rock Island, and styled the Rock Island Medical School. This was done to give a central position and not to interfere with any school already in operation. Discretion was here considered the better part of valor.

"New schools are looked upon with a jealous eye, and their projectors are frequently made the target at which bad eggs from other schools are hurled. I have some reputation in this way; am a new schoolsman; have associated in getting up several; was a private at the late lamented McClelland, who got up Jefferson College and sundry other medical schools in Philadelphia, and who abused and vilified and conspired against by his envious rivals, some of the very men we opine, who now enjoy the fruits of his labors. I have had early lessons and have had late lessons and only wish I were indeed a more worthy pupil of so worthy a master.

"What I wish to say is to define our position—declare our bill of rights. We hold it to be essentially our inherent and unalienable right to do just as we please, to get up a school on Rock Island or on Nantucket Island, on the Rocky Mountains or in the city of Gotham, or at any place between—among our neighbors the Flat Heads or among the High Heads whose facial angle comes up to the standard of our own—and having established it we have the unquestionable right to teach the doctrines of the Flat Heads for true physic, but the posted up doctrines of the fathers, seasoned of course with the salt and sage of our own experience to make our lessons sit well on the stomachs of students; and should the smoke of our incense rise and curl more gracefully than that from some other wigwam, or in other words the offering of our firstlings prove more acceptable like Abel's of old; we hold that no wicked, envious brother Cain should rise up and slay us outright with a paltry paper pop-gun; commit the horrid crime of fratricide and get a mark set on himself for life; yea verily, we hold that we have the inalienable right to do so as we please, albeit, in those times of reform in medicine we shall please to be found practically regarding all the reforms and usages of the enlightened and progressive age of medicine in which we first draw our birth; as a matter of principle, in the first place because we wish and

please to do right; and as a matter of policy, in the next place to present ourselves from being read out of the church as soon as christened. Other schools are reforming—we wish to start right and to be in communion with some. We have not taken our stand, be it understood in this far out, dark and be-nighted corner of the world, where hardly a rushlight sheds its feeble ray, in order to be an outlaw and carry on a border warfare with our neighbors the Sacs, Foxes or Pottawattomies, or any other tribe of Indians or white men, school or professors who may have claimed this as a portion of their stamping ground, and raised the warwhoop, brandished the tomahawk or issued anonymous scurrilous circulars. We war not with them. Let those who make asses or Indians of themselves who will, and incur the just censure of public opinion. We have too much self-respect, and too abiding a sense of what belongs to good manners and the proprieties of civilized life, to retaliate or even to respond. Not that our border foes are less vulnerable than border hordes in general, but our ambition runs not in this vein; runs not thus low.

"If we cannot devote ourselves to some higher purpose than a loathsome effort to inflict injury, let us and our cause be doomed to degeneration. But ours is a nobler object; a broad effort to do good. And our mission, be it known is one of peace, order and good will to all men, to whom these presents shall come or may in any wise concern. We intend to be strict conformists to law, human, medical and devine; to set a good example to all professors and the rising generations of doctors; to treat our friends with true friendship; our foes with extraordinary, even Parisian politeness and the more so the more they abuse us, the Journals and Reviews, with our thanks and patronage whether they notice us justly, unjustly or not at all; our Indian neighbors as though we wished to civilize and Christianize them; students of medicine with sound doctrine, line upon line and precept upon precept; and to continue to treat all mankind with gentleness and charity when well, and with the best of our skill and physic when it is their good fortune to employ us when sick. We intend to continue to pursue an honorable course in all things; in teaching or fighting, whatever others may do, and to take Dame Fortunes' favors with laughing good humor, though some few of them may come through tainted channels. We mean especially to keep up with our noble profession as closely as possible and continue to teach it; and we intend to abet all consistent reforms."

We have not been able to trace the subsequent history of this learned medical teacher and college

president. It does not appear that he continued his connection with the school after it moved to Davenport.

The history of the school in 1849 when located in Davenport was apparently uneventful. The only reference we have been able to find aside from the fact of the school conducting a course of lectures for one year, is in the autobiography of the distinguished jurist, John F. Dillon who entered the Rock Island school in 1848 and graduated from the school in Davenport on 1849-50. Judge Dillon says, "the professors as a body, were able men, some of them men of great learning and even genius. Abler teacher than Professor Richards, who taught practice, Professor Sanford who taught surgery, and Professor Armor who taught physiology, it would be difficult to find in the chairs of any contemporary medical institution." Professor Samuel G. Armor later became professor of therapeutics in the Medical Department of the University of Michigan and still later professor of the practice of medicine in the Long Island Medical College in Brooklyn, N. Y. Dr. Armor was a graceful and eloquent lecturer. The writer well remembers the crowding of the lecture room with law and liberal arts students, University of Michigan, when Dr. Armor delivered his lectures on opium. The lectures were regarded as models of eloquence.

It appears that the course of lectures in Davenport closed in the spring of 1850 and opened in Keokuk, November, 1850. The "Regulations" for the first term of lectures in Keokuk read as follows:

The next session will commence on the first Monday in November and continue sixteen weeks. The annual commencement will be held and the degrees conferred immediately after the close of the term. Every student will be required, within ten days after the opening of the session to take out the matriculation ticket, and pay the regular fee.

The following are the requisites for the diploma:

First—The candidate must be twenty-one years of age. Second—He must have attended two courses of medical lectures; one of which must have been delivered in the medical department of the Iowa State University, or evidence of three years reputable practice, will be regarded as equivalent to one course. Third—The candidate must have studied medicine for two years under the direction of a respectable medical practitioner. Fourth—He must write a medical Thesis either in the English, Latin, French or German languages. Fifth—He must pass an examination satisfactory to the faculty and pay the graduation fee in advance.

Fees—The fees for a full course of lectures amount to \$70. The student may attend one or more

of the courses, as he may be disposed, and pay only for the lectures for which he enters. The fee for the diploma is \$20. The matriculation fee is \$5. The fee for admission to the dissecting rooms and demonstrations is \$5. Members of the profession from every part of the country who are graduates of medicine will on presenting their diploma to the dean and paying the matriculation fee be admitted gratuitously to all the lectures. Board can be obtained in the city at from \$1.50 to \$2 per week. Medical books may be purchased at our extensive book stores, on as good terms as in any Western city.

JOHN F. SANFORD, M.D.,  
Dean of the Faculty.

It may be noted here that the Keokuk school was nominally the medical department of the State University of Iowa, recognized as such by the Iowa legislature and later was granted appropriation of public money as will be hereafter noted.

The school was now fairly launched on a long course of usefulness, but troubles soon began to appear. Dr. N. S. Davis had recently located in Chicago, but entertained "peculiar" notions in relation to medical education which were not agreeable to the views of established medical colleges even from New York to Keokuk. The Western Medico-Chirurgical Journals, afterwards the Iowa Medical Journal, notes that Rush Medical College, an institution located in the city of Chicago, announced to the class that was about to enter upon courses of instruction, a sudden change of purpose in the minds of the faculty and a resolution to reduce lecture fees, which was at once adopted and proclaimed to the profession in an introductory lecture by Dr. N. S. Davis. The note goes on to state; "It was well known that Dr. Davis had for many years held peculiar views in regard to medical education; and that a morbid desire to force these innovations into conflict with time honored usages of the profession, had drawn upon him a severe rebuke from the eminent and venerable Professor Payne of the New York University."

Dr. Davis had just been appointed professor of physiology and pathology in Rush Medical College. The offense he was guilty of was the extension of the time of lectures and reducing the fee. Dr. Davis was of the opinion that the interest of medical education would be furthered by making longer courses and reduced fees, so as to enable students of moderate financial ability to study longer in a medical college and therefore proposed to reduce the fees to \$35.00 in cash. It will be borne in mind that there were at that time many joint stock private medical colleges in the United States and by dividing the fees among the members of the faculty added very materially to

the income of the professors.

The Journal referred to was edited by the Dean of the College of Physicians and Surgeons, Keokuk. This reduction of fees caused the faculty much uneasiness.

The editorial referred to speaks of the "sophistry and rottenness" of the introductory address of Dr. Davis with considerable spirit and hopes that the American Medical Association will consider the matter in a "sense of honor, dignity and propriety in cases where there is no written law applied."

It will be remembered that Dr. Davis was only able to carry out his plan of reform in medical education on the organization of the Chicago Medical College.

Another cause for grief appears in the December number of the Western Medico-Chirurgical Journal. The Evansville Medical College issued a bulletin proposing to admit "Sons of Temperance" at one-half the usual fee for tuition and in return for this concession, it seems that the "Sons of Temperance" expressed themselves as having no hesitation in recommending the school as in every way worthy of public confidence. This kind of competition was very offensive to the editors of the Journal who were also proprietors of the Keokuk College.

In the same number of the Journal appears an announcement that the "College of Physicians of the University of Iowa opened in the city of Keokuk the first Monday of November under the most flattering auspices." The special reason for this good feeling appears to be the generous action of the city council in appropriating \$200 to "enable the faculty without embarrassment to make desirable additions to their various appliances." In the same number, the Journal expresses profound contempt at the opening of the Female Medical College of Philadelphia, and its disgust that seventy women have matriculated. This was in 1857.

A letter to Professor Samuel G. Armor from Professor J. F. Sanford, written from Iowa City, January 7, 1851 presents some interesting facts which show the advanced views entertained by Professor Sanford at that time in relation to medical education; he says, "A better primary education on the part of our medical students will do more to improve and maintain the honor and dignity of the profession than any arbitrary exactions of medical colleges or societies, or prescriptive legislative enactments, but numerous literary institutions in Iowa, will doubtless display their influence in the ranks of the profession."

In writing of the meeting of the State Medical Society for 1851, Dr. Sanford says:

It is very desirable that every portion of our state may be represented at Fairfield at the meeting of the State Medical Society in May next, that an extended and combined effort may be made to develop the medical resources of Iowa. Dr. Sanford was apparently directing some medical legislation before the General Assembly at Iowa City in relation to the question of a state lunatic asylum. It was felt that the time had come when Iowa should have an institution of this kind, and on Tuesday morning a petition for an appropriation to build a lunatic asylum signed by several hundred names was introduced into the senate and immediately after, an able memorial upon the same subject from Professor D. L. McGugin. In this memorial, after presenting the statistics of insanity for this state and showing the necessity of such an institution, the professor made an eloquent appeal in behalf of this unfortunate class of our citizens which cannot fail to excite the commiseration of every philanthropist. The census returns in which these statistics are embraced have not been officially received from every portion of the state, and we therefore cannot indicate, exactly, the number of lunatics to be provided for; but adopting the proportion to the whole population found in other Western states there cannot be less than forty or fifty of these unfortunate beings in Iowa.

The watchful editor of the Journal takes offense on reading Dr. Davis' book on the "History of Medical Education and Medical Institutions in the United States," because Dr. Davis seems to give preference to the schools in Philadelphia and New York, over those of Keokuk and Chicago. It is apparent according to the Journal that the former schools have possessed some advantages, but altogether are quite inferior to the schools of Keokuk and Chicago in that they fail to give a thorough practical education to men who are about to enter on the practice of medicine. It is a startling realization of Dr. Davis' ignorance in not being able to recognize the advantages of these two centers of medical education as set forth by the editor.

Notice is given in the April number of the Journal that Dr. Samuel G. Armor, professor of physiology and pathology in the Iowa University since the first organization of its medical department had been elected to the position of professor of natural sciences in the University of Cleveland.

It appears from an editorial in the June number 1850, that some criticism was made by the Medical News and Library of Philadelphia on the medical school at Keokuk. The Journal referred to the questionable ability of this school to properly train young men to receive the degree of doctor of medicine. The Medical News intimated that any number of physicians could associate themselves together under the general law, as the State Society, can exercise the right to de-

cide upon the qualifications of every gentleman who practiced medicine in the state.

In the July number of the Journal there is an interesting account of the meeting of the American Medical Association at Charlestown, South Carolina. At this meeting Dr. Jones of North Carolina introduced the following resolution; Resolved, "That all the medical colleges in the United States are hereby earnestly and respectfully, through committees, chosen by them, at least once in every six years, to take into consideration the proper methods of harmoniously elevating the standard of medical education in said colleges." In this connection Dr. Drake offered the following resolution which was adopted; that in the opinion of this association, the students of our schools be required to matriculate within the first ten days after the opening of the sessions, and continue their attendance to the end of the term, taking with them evidence of the same, to be presented with the tickets of the professors when they become candidates for degrees.

The secretary read a protest from the Iowa University against the representation of the Rush Medical College in this Association. The North-Western Medical and Surgical Journal—the organ of the Rush faculty, observed that the protest was made on the ground that Rush Medical College reduced fees for tuition as it asserted to the injury of the neighboring schools. On motion of Dr. Jervey of South Carolina the protest was referred to a select committee consisting of Drs. Huston of Pennsylvania, Grimshaw of Delaware, Gaillard of South Carolina, Wood of Pennsylvania, Adams of Massachusetts and Emerson of Pennsylvania.

The ill-feeling which led to this protest grew out of what was regarded as underbidding in the matter of fees of the different medical schools.

A feeling of encouragement appears about this time in an announcement in the Journal that the means appropriated by the last General Assembly had been expended in the construction, or rather, the contract had been made which would give the University one of the finest buildings in the West. There will be three large lecture rooms, two of which seat over 350 students; one about 250 students. "The building is situated upon a beautiful and commanding eminence and faces the river, with the front finished in the finest style of architecture of 100 feet. It is 50 feet deep and attached to the main wings of the University Hospital erected and bountifully furnished by our generous city."

We now pass from August, 1851 to July, 1854 for the lack of sufficient data. In 1854 the faculty consisted of: D. L. McGugin, M.D.,

professor of physiology, pathology and microscopy; Freman Knowles, M.D., professor of theory and practice of medicine; J. C. Hughes, M.D., professor of surgery and dean of faculty; J. E. Sanborn, M.D., professor of chemistry and materia medica; E. R. Ford, M.D., professor of obstetrics and diseases of women and children; Edward A. Arnold, M.D., professor of anatomy; P. Van Patten, M.D., demonstrator of anatomy fees. Matriculation \$5, diploma \$30, dissection room and demonstration \$5. Course of lectures for the session of 1853-1854 commence October 20 and continue sixteen weeks. Fees to each professor \$10.

It is quite apparent from the following editorial that the way of the Keokuk College was not altogether smooth; that an invisible enemy was conducting a propaganda of harmfulness "frightfulness" against the institution.

"The faculty have determined" says the editorial "to change the time of the opening of the college course for next winter to the first of November and close about the first of March. For various reasons we have concluded to make the change and we believe it will prove more satisfactory to all concerned. Circulars will be issued soon giving particulars, to which for further information, our readers are referred."

"We would remark by the way for the gratification of the friends of the school, that the secret and undercurrent efforts to distract and break down the college have most *signally failed*, as all such disgraceful means will in the end do. We have not room now to dwell upon the particulars of this *dark plot*, but will refer to it again in the future. We take this occasion to thank our numerous friends over the state who were kind enough to put us in possession of the designs and the means employed, and also for their expressions of friendship and promises of aid if required." "From present appearances there will be a larger class than last session, perhaps double, and we would here assure those who have determined to attend the coming session, that the faculty are determined to make it still more interesting and profitable, and that it were well for those to make their arrangements to that effect at an early a day as possible."

A period of thirteen years follows without news from the medical department of the Iowa State University located at the City of Keokuk, Iowa. Some changes had been made in the faculty and the fees for the lecture course had been changed from \$10 each professor to \$40 for the entire course. Matriculation, dissection and diploma remained the same. The announcement for 1868 reads as follows:

Twenty-First Announcement of the Medical Department of the Iowa State University Located at the City of Keokuk, Iowa

President of University—Rev. O. M. Spencer, D.D.  
Curators of Medical Department—E. R. Fored, M.D., president; E. H. Harrison, secretary; Wm. Leighton, esq., Hon. Samuel F. Miller, Wm. Patterson, esq., Hon. R. P. Lowe, S. Hamill, esq., J. B. Howell, esq.

Medical Faculty—J. C. Hughes, M.D., professor of the institutes and practice of surgery and of surgical clinics; George W. Hall, M.D., professor of physiology, pathology and general therapeutics; H. T. Cleaver, M.D., professor of obstetrics and diseases of women and children; A. M. Carpenter, M.D., professor of the institutes and practice of medicine and of medical clinic; E. J. Gillett, M.D., D.D., professor of chemistry, toxicology, materia medica and microscopy; Edward Clapham, M.D., professor of general and microscopical anatomy and demonstrator.

D. Mooar, LL.D., lecturer on medical jurisprudence and forensic toxicology; L. C. Ingersoll, M.D., lecturer on the principles of dental science.

Dean of the Faculty—J. C. Hughes, M.D.

ANNOUNCEMENT

“The session of 1867-68 will commence on Wednesday, October 30. The Iowa State University was created by act of legislature during the session of 1846-47, and was munificently endowed by an appropriation from the general government. Thus, the medical department, was established by act of legislature in the year 1849, and has been liberally assisted by appropriations from the state.

The faculty of the medical department of the Iowa State University are pleased to announce to the profession throughout the Northwest, that the twenty-first regular course of lectures of an institution whose triumph has been signal, will open on Wednesday evening, October 30, with a general introductory lecture by Prof. Gillett. The session will close on the last day of February.

The college clinic affords ample opportunities for the student to apply the principles which he derived from the various branches taught. Patients are examined almost daily in the presence of the class, and surgical operations performed (if required) or prescribed for; and here the professor conducting the clinic elaborates in detail, and explains the modus operandi of prescriptions, and the process of cure wrought by appliances and surgical operations. The surgical clinic is conducted twice a week, and frequently daily, by the professor of surgery, while the medical clinic is provided for by the professor of practice.

By reference to the resolutions passed by the Teachers' Convention, held at Cincinnati during the session of the American Medical Association

in May last, it will be observed that the length of time recommended for study is increased to four years—including three lecture terms consisting of six months each—before the student is admitted to an examination for the degree of Doctor of Medicine. While the faculty most cordially indorse the suggestions of the Teachers' Convention with a view to the elevation of the standard of medical education, we deem it best to adhere, for the present session, to the established usage of colleges throughout the country, which require three years' study, including two courses of medical lectures—or, as an equivalent, four years' reputable practice and one course of lectures—as a pre-requisite.

Students are requested to make their arrangements to be present at the opening and remain until the close of the session; and the better to secure this end, the faculty would here state that certificates of attendance will be issued only for the time actually spent in attendance upon lectures.

Fees

For the entire course of instruction.....	\$40.00
Matriculation ticket.....	5.00
Demonstrator's ticket.....	5.00
Hospital tickets, gratuitous.....	.....
Graduation fee.....	30.00

The total expense to the student is less than at any other school of the country.

Graduates of this, and other regular schools of medicine, are admitted to all lectures, upon payment of a matriculation fee of ten dollars.

REQUIREMENTS FOR GRADUATION

Each student is required, within one week after the opening of the session, to pay the fees and procure his matriculation ticket. Candidates for graduation—

First—Must be twenty-one years of age, and present testimonials of good moral character.

Second—Must have attended two full courses of medical lectures, the last at the medical department of the Iowa State University; or, evidence of four years' reputable practice will be considered as equivalent to one course.

Third—Must have studied medicine three years (including lecture terms) under the direction of a respectable medical practitioner.

Fourth—Must furnish a satisfactory medical thesis (original and in his own hand writing), to be delivered to the dean, at least four weeks before the close of the session, accompanied by the graduation fee.

Fifth—Must pass a satisfactory examination by the faculty, at the close of the session.

The attention of students is called to the fact that the session of four months—six lectures

daily—equals, in amount of instruction, any other school in the country.

The hospitals located in this city give superior clinical advantages to the student, and the moderate cost of tuition and other expenses, make it one of the most desirable points for a thorough medical education.

Our Medical College—The coming session, 1867-68, of our medical institution, offers advantages to the student equal to any institution of the country. Our corps of professors are men of experience as teachers and practitioners, and western in their energies and ideas. Our appliances are in all the departments, every way equal to the wants of the profession and student. We labor to qualify young men for the full discharge of all professional duties not theoretically alone, but practically. We teach not only from lectures, but by daily examinations and illustrations leaving practical facts indelibly impressed upon the mind of the student. The cost, considering the length of the session and number of lectures, is less than at any other of our regular colleges. Our aim has always been, to save time and money for the student, and give him all the advantages of a thorough medical education. This we claim for the medical department of the Iowa State University."

Clouds began to darken the horizon of the medical department of the Iowa State University at Keokuk in 1868-1869. Rumors of a new medical department located in connection with the University at Iowa City began to circulate. The views of the dean of the Keokuk school found expression in an editorial published in the Iowa Medical Journal for January and February, 1869.

#### THE UNIVERSITY AND ITS MEDICAL DEPARTMENT

"The subject of a medical department in connection with the literary department at Iowa City, is creating considerable discussion at this time. We had written an article for this number of the Journal, but for the want of room are compelled to withhold it until the next issue. Should our literary and law departments at Iowa City be so unfortunate as to have their quiet disturbed by a medical department, we trust that it will fare better in the Association than the medical department of the Michigan University, connected with the literary and law departments, at Ann Arbor. The Medical and Surgical Reporter, of Philadelphia, December 19, speaks as follows:

The state authorities by their course toward the medical department of the University of Michigan, are keeping that university in such a constant turmoil and excitement, that some of the profession may yet withdraw from all connection with it. They cer-

tainly will, if the policy is pursued of forcing irregular practitioners into position in the institution. This unsettled and uneasy feeling in connection with the medical teaching in that state has probably led to the organization of the Detroit School of Medicine, etc.

When medical schools are wholly under state patronage, and associated with the literary and law departments, as exist in Michigan, and which the trustees of the university propose to adopt in connection with our university, it cannot but result in disaster to the school and the best interests of the profession.

Unless our trustees will provide for all the pathies and isms in their organization, the friends of those severals isms will be on the alert when appropriations are asked, for the support of this department. It is not to be supposed that the several legislative assemblies which shall hereafter convene in our state, will be a unit in thought, word and action on the subject of Medical Education. I remember very well, at a meeting of our state legislature in Iowa City (the old capitol), we succeeded in securing the passage of a bill appropriating to the College of Physicians and Surgeons at Keokuk, known as the medical department of the Iowa University, the sum of \$5,000. But imagine our surprise when the bill was vetoed by the governor, and in his message accompanying the veto, he gave as one of his principal reasons for the course pursued that the legislature had no right to favor by their appropriations from the state funds one class of medical men over that of another. The same argument will be used, should the trustees of our university carry out the plan proposed, and prejudice not only the medical department, but the interests of the other departments associated with it."

In spite of the warning of disaster emanating from the Journal the Iowa City interests continued active and finally prevailed, notwithstanding many difficulties and discouragements. The new school was organized in 1870 and still exists as the medical department of the Iowa State University. The Keokuk school struggled to maintain its identity as a department of the State University for a few years, or until the Iowa City school became an established fact, when it became content to continue under the name of the College of Physicians and Surgeons but maintained a belligerent attitude for many years, until internal dissensions led to a division, giving Keokuk for a few years two schools, the new school being known as the Keokuk Medical College which finally absorbed the old College of Physicians and Surgeons. At last with the organization of the Council of Medical Education of the American Medical Associa-

tion and the increased responsibilities of medical colleges in furnishing adequate medical training, the financial needs became so acute that it became necessary to merge with some other institution apparently more fortunate and in 1908 turned over its assets to Drake University in Des Moines and became a part of the Drake University School of Medicine. The merger with Drake promised much until 1913 when the combined schools felt the increasing pressure of the higher demands of medical education, and not being able to secure sufficient financial support, merged with the State University. These mergers relieved the medical college situation in Iowa which had long divided the medical profession in the state into groups which had brought much discord and no little bitterness at times between the rival factions. The single school under the financial support of the state and the moral support of the profession has brought about the building up of a creditable school of medical activities which promises much for the future.

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## SUSCEPTIBILITY AND RESISTANCE—A MEDICAL PROBLEM

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MAJOR KNUT HANSEN, M.C.

Division Surgeon, Eighty-eighth Division, France, January 5, 1919, to all Medical Officers of the Eighty-eighth Division

(Approved by the Surgeon General)

November 11 found the morale of our division at a high pitch. Everyone was eager for the opportunities that lay ahead and everyone's thoughts were upon the tasks ahead. The sudden change in conditions on that date has produced a steadily growing change in the attitude of officers and men. The excitement due to the stimulus of approaching battle has been replaced by the depression which naturally follows the removal of any stimulant. The incentive that had driven them thus far disappeared and they began to think of home. Medical officers have been affected just as others have been, and are just as eager to get home to their families and their work. But for them the war is not yet over, their greatest enemy is as powerful as ever—in fact more powerful and defense against him is more difficult. "We shall not be here long" is the thought in many minds. The thought has led to a certain carelessness in regard to sanitary conditions and in the matter of personal defense. Now most of the diseases to which soldiers are exposed are the so-called preventable diseases, and every case of disease of this type must register a flaw in the defenses. Many steps in the prevention are beyond our control—beyond the control of any one in the

service—but each and every medical officer has his part in the system and should be sure that he has gone the limit. Material with which to work is scarce. This but emphasizes the need of hard work in making a little bit go a long way and of ingenuity in devising new appliances. Hence each and every medical officer must devote his whole time to the task at hand, forgetting his desire to be at home, remembering only that to him is committed the task of ensuring the return unscathed by the ravages of preventable disease all those who have passed through the war unharmed by the agents of the human enemy.

As most of the ailments which prevent themselves are due to the invasion of the body by bacteria, either known or undiscovered, it is proper that we refresh our minds as to the circumstances connected with the process of disease production by these agents. Every case of disease, whether of bacterial origin or not, is a battle and with the exception of a few instances the battle must be fought by the patients, unassisted against the invaders. The doctor is able to do nothing except to better the conditions under which the body of the sufferer fights. Hence his efforts must be directed toward destruction of the organisms before they gain access to the body or to prevent their entrance. But little less important are the efforts to keep each man in such condition as to enable him to throw off an infection if it becomes necessary. All this is in the realm of preventive medicine, which is the type upon which the medical officer must place his reliance. The medicines at his command are few and simple; the agents of prevention are many and mighty.

In the cells of every man there are two warring elements—the element which makes infection possible and the one which prevents or limits the infection and enables the man to throw it off. These are known respectively as susceptibility and resistance or immunity. Susceptibility varies widely in individuals and is subject to many modifying influences. Since resistance is closely bound with susceptibility, the former is increased in the same proportion as resistance is decreased. Certain animals may be susceptible to one organism to which others are not. Some bacteria have a predilection for men, some for animals. Thus the gonococcus, perhaps one of the most selective of all pathogenic organisms, attacks only the human species under normal conditions. The same is true of the bacillus of typhoid fever. Many of the bacteria producing disease in the bird will not affect the human body. Many organisms live in the body of one animal producing no ill effect, but if transferred to another species

become pathogenic. Race, while not so marked a factor in relation to susceptibility, is still so evident that it cannot be overlooked.

The incidence of tuberculosis among negroes and its toll in lives is a very good example. The frequency and severity of the same disease among American Indians, the marked susceptibility of whites to malaria as contrasted with that of the natives of the tropics is no less striking. The reason for this difference has not been satisfactorily explained, but the most easily accepted theory is that the explanation lies not in any primary difference in susceptibility but in the fact that through generations of contact the various races have developed an immunity against the diseases with which they have been surrounded.

Subdividing still further we find that certain families show a peculiar susceptibility to certain diseases. This is very evident in the case of tuberculosis but may also be noted in other diseases.

Just as animal and man, black men and white, family and family, show differences in the readiness with which their tissues are invaded by bacteria so do the different tissues in man's own body show them. Certain organisms show a decided tendency under ordinary circumstances to attack definite tissues. When we think of the gonococcus we associate it with the genito-urinary tract or the conjunctiva and rarely do we find it anywhere else, never indeed does it attack primarily any other structure. The meningococcus limits itself to the delicate coverings of the cord and brain. The subcutaneous tissue is more resistant than the deeper tissues and even than the skin itself; the voluntary muscle more resistant than the bone, etc.

All these are the intrinsic forces that govern the susceptibility of an organism to invasion. All of them are subject to modification by certain forces that work from without, tending to lower the resistance of the individual. Any factor that tends to retard or interfere with the normal activities of the body, may upset the balance between susceptibility and resistance and give to bacteria the chance of gaining a foothold. You are all familiar with the old experiment of attempting to inoculate a chicken with anthrax. It is impossible unless some means are taken to lower that chicken's resistance. Stand it in cold water until the bodily temperature has dropped and the organisms are able to live and grow in that chicken's body. Expose a man to extreme continued cold and dampness and the ever present organisms will take advantage of his temporary weakness. Pneumonia will be the result in many cases. The same is true to a more marked degree in the case of trench foot. Under ordin-

ary conditions the mycelia are harmless. But have that man stand in water or mud for a long time or have him wear wet shoes and leggins that restrict circulation and even though the cold be not intense, those saprophytes will enter the foot and the pathological process will begin. Or in the case of wounded men in a condition of shock. All of you know how rapidly infection develops in such a case and how inevitable that infection if the condition of shock with its accompanying lowering of bodily temperature is allowed to continue.

Physical fatigue acts in much the same way but much more slowly. During this condition the bodily functions are retarded by the accumulated toxins due to decomposition of tissue. These toxins are normally thrown off during the periods of rest. If these periods are insufficient the man's vitality is slowly depressed and he becomes easy prey to any organism that gains entrance to his body. Mental fatigue or any influences that tend to upset a man's mental pose produce the same effect to a more marked degree. These influences are at work perhaps more than any other in these days of suspense and home sickness. And they are the most difficult of all to combat.

Food conditions are far from ideal. The food is good and in most instances well prepared, but what of the conditions under which it is eaten? Can a man eat properly with his mess kit on a window ledge and his feet in slimy mud? Especially when the rain is dripping from the roof into his mess kit and running from his head down his face. And yet a pair of woolen gloves is all that is needed to complete the picture that many of us see almost every day. The food is naturally bolted as quickly as possible and hence its value is very decidedly reduced, while the man's digestive apparatus suffers. The combination cannot but render the man more susceptible to infection.

In a large majority of diseases which we are called upon to combat the definite causative agent is known and can be isolated. The advantages of knowing just what organism is at work in any case are so obvious as to need no discussion. The success of efforts to stamp out, or prevent the spread of an epidemic depends upon our knowledge of the habitat and the mode of transmission of the virus at fault. There are available in the A. E. F. laboratory facilities for the isolation of any infectious agent. The medical officer has but to request that the work be done and he should take advantage of this help in establishing an early diagnosis in all doubtful cases. If a disease breaks out which may be due to carriers the laboratory will help to determine who the

carriers are that they may be removed as a menace to their comrades. We should bear in mind that those diseases against which men have been immunized are apt to be atypical. The various cases of typhoid fever in the division have demonstrated this point very clearly. There may be no typical signs. Rose spots have been observed in no cases. Enlargement of the spleen in many is absent, or so slight, that it is easily overlooked. In some, even temperature was absent. Diarrhea seems to be one constant symptom and a persistent diarrhea is therefore suspicious. It is in cases such as these that the laboratory is able, and stands ready to help.

Bacteria gain access to the body in many ways, but we are interested in very few of them. One specialist has remarked that if the mouth and nose could be guarded, infectious diseases would be blotted out. Practically all of the diseases with which we have to deal gain entrance through either the respiratory or the digestive tract. Of the two, the respiratory is by far the more frequently used, and hence should be the more carefully guarded. But such has not been the case. The care exercised in the supervision of water and food supply has predominated. Unfortunately it is impossible to secure for each man the proper amount of floor space in billets. But it is possible and it should be insisted upon that men sleep with head and feet alternating. In this climate, under the present conditions, there is bound to be a great deal of coughing at night. But there is no necessity of one man coughing into another man's face. Pneumonia, the most powerful enemy of the A. E. F.—influenza, meningitis, diphtheria, and probably scarlet fever, and measles, are the common diseases entering by this route. Typhoid and its allies, paratyphoid A, and para B, cholera and dysentery are the usual ones to be due to food and drink. Some few diseases require transmission from patient to patient through the medium of an intermediate host. Of these malaria and yellow fever are the most common, but from these we have little to fear at this time. Infections of the genito-urinary tract are well understood, and the prevention is available. It is a matter of education. The paths of exit correspond in most cases to the paths of entrance. The so-called respiratory diseases—meningitis, scarlet fever and measles—give off the infective agents in the secretions of the nose and throat. Hence these diseases are spread by means of the spray of the cough or the sneeze, and by the masses of mucous and puss expectorated into the streets and upon the floors. The bacilli of typhoid fever and paratyphoid are as is well known, given off in the stools, but it

must be remembered that they are also given off in large numbers in the urine.

Cholera and dysentery are spread in much the same manner. While the spread of venereal disease probably depends absolutely upon sexual contact, there is a chance of its being spread by contact with the secretions from venereal cases. The periods during which the various diseases are infective vary. Probably all of them are limited in duration, but very few of them have been definitely determined. In the cases which we are commonly called upon to treat, the period according to our present knowledge runs through the entire course of the disease, and may persist long after the convalescence is established. Thus a typhoid patient is not considered "safe" until his excreta have been proved free from bacilla by successive cultures. The meningitis patient, the diphtheria patient as is well known, may remain as carriers after all symptoms of the diseases have disappeared. Probably many other organisms are carried in the same way. In the case of measles the duration of the infectious stage is short—the same is true of yellow fever but our most serious enemies cannot be regarded as limited in this way and constant guard must be maintained and every precaution taken against them.

The knowledge of the mode of exit of the various bacteria should put us on our guard and enable us to destroy many of them before they are spread. The mass of sputum is easily rendered harmless, but when the organisms in it are scattered by feet, by wind and by flies, they pass from our control, and become free lances to attack where chance directs. Hence the slogan "cough and sneeze into a handkerchief or a piece of gauze. Blow your nose in your handkerchief and do not expectorate on the ground." The urine and feces may be sterilized where they are collected and they should be else the bacilli in them are sure to turn up in the water that some soldier will drink. These organisms will live for months in soil and in water, waiting for a favorable chance to grow. Just at present we are not obliged to fight flies, but soon they will be active in the distribution of the germs that are left about. They may scatter next summer the organisms allowed to live through the winter. Mosquitoes will soon be about again. The plasmodium of malaria gaining entrance to a mosquito may infest successive generations.

It is well to remember that not water alone may carry the bacillus of typhoid fever—or any other organism. The land in France is teeming with bacterial life. The method of fertilizing makes easy the introduction of pathogenic organisms which are splashed onto vegetables and fruits.

This is especially true of grapes which are consumed by the soldiers. Fresh milk obtained from the inhabitants may account for many cases of sickness. The beer and wine is in many cases grossly polluted by dilution with impure water. To all of these sources we should direct our attention.

This is not the time for us to discuss solutions. We have reviewed the difficulties and considered our problem. The forces against us are strong and the conditions under which we labor are sometimes discouraging. All of the factors tending to reduce resistance and increase susceptibility are at work among us. The soldiers are necessarily much exposed to wet and cold, their shoes are often poor and their uniforms wet from day to day, their living conditions do not tend to comfortable nights and satisfactory rest. The eating conditions are bad. All of these circumstances combined with the natural feelings of homesickness to produce discouragement and discontent. The medical officers problem is a big one. The odds against him are great. Many conditions are beyond his control and many supplies needed are unavailable, but there is much that he can do and it behooves him to be sure that before he complains or seeks help from the powers higher up that his efforts have reached 100 per cent. It is then that he has filled his obligations and come what may his duty has been done.

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### SYPHILIS\*

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C. L. BAREWALD, M.D., Davenport

War has been undertaken throughout the state against venereal diseases, and Davenport has joined the ranks in the commendable struggle.

It gives me pleasure to comply with the request to present some of my observations in the treatment of the calamitous social evil in this locality.

The points to take into consideration are, Infection, Diagnosis and Treatment.

*Infection*—In this locality I find the most prolific source of danger to exist in the holding of general dances, or public balls. These are arranged in large halls, no one is excluded, excepting the blacks, every one is admitted regardless of character, respectability and all are welcome, the decent as well as the questionable persons, the honorable people as well as the fallen, including also the villainous characters who attend merely for the purpose of gratifying their propensities, and of capturing innocent and unguarded dupes who may be found in the promiscuous gatherings.

When occasionally visiting these places for the purpose of gaining information, or in order to see what kind of people were taking part in the entertainment, I found there patients who were at the time under my treatment, others whom I had been treating, and some who should be under treatment for syphilis.

A deplorable feature of the assemblies is that they are attended by young girls, some of whom, up to that time had not even lost their baptismal innocence, going there merely for a lark, untended and unguarded, not watched over and warned by a loving mother, ensnared and captured in the wicked wiles, and entered upon the first step of the downward course as an unsophisticated victim and at this first outing generally is the time when they are taken in and are infected with the disease.

At the dance itself the entertainment progresses with a fair degree of decorum, and there is nothing particularly reprehensible to be noticed in the public conduct.

The language between him and her, dates, or appointments, is another consideration. However, the occasion when the mischief is perpetrated, is the farewell after the dance, when the path does not lead to the home, but to side ways, alleys and to lonely and dark places. There the indulgence is procured, and there the diseased person communicates the infection to the other party. I know this, because patients under my treatment have confessed it to me, and have told me about it, not once, but often. These are only a few observations on this point. Yet, all in all, from practical experience, I have to look on the public dance, or ball, in this locality as one of the principle sources of infection of syphilis.

Looking around further in other directions I find that the invitations and allurements of the street walker carry with them the disseminations of venereal infection. They carry on their nefarious traffic, not so much openly on the street, but rather using for their purpose the taxi-cabs and the public ball, where they go onward unhindered in doing the best they can.

Another source of infection are places of assignation, although in these the danger of contamination is somewhat diminished by the opportunity of making application with soaps, antiseptics and remedies. As to my opinion about abolishing or closing these places, I think the proceeding would do more harm than good, on account of scattering the culprits amongst the residence, instead of having them circumscribed and safeguarded in their own peculiar realms.

My observations have shown me that the spreading of syphilis is promoted by the promis-

\*Read before the Scott County Medical Society, March 4, 1919.

cuous use of the drinking cups, and the public water fountain. I have seen a syphilitic with virulent sores on the lips drinking from a common cup at the water fountain.

The infection is diffused by syphilitics who are engaged in the dispensing of foods and drink, and who, without observing important and necessary abolutions and germicidal lotions, are employed by washing dishes, handing out with their unclean hands, bread, candy, fruit and other viands in our restaurants, hotels and stores.

The same application may be made in regard to some barbers who are not clean. Moreover, I have seen danger lurking in kissing, in the use of wash basins and towels, of linens and bed clothes when not properly sterilized, the great danger of toilets and water closets, and even the professional man may be found with his dentistry instruments or linens not sufficiently antiseptic. In fact, it seems that eternal vigilance is the price of liberty from syphilitic contamination.

*Diagnosis*—When these patients come to the office, my experience has been that some are open, and ready to make a clean breast of it, willing to give all the history and information to the best of their ability, and also satisfied to abide by the judgment and treatment of the medical adviser. Others, however, are secretive and deceiving, denying the gentle impeachment and merely asking treatment of some symptoms, not even mentioning that they have made the rounds for treatment by the general practitioner of internal medicine, by the oculist and aurist, the dentist, rhinologist and neurologist. Nevertheless, you have become wise, and when a young person comes complaining about hardness of hearing, impairment of vision, nephritis, diabetes, backache, cystitis and sciatica, you will not forget to make investigation as to the possibility of syphilitic infection. I find that about 20 per cent. of syphilitics are suffering from kidney troubles.

The defects which give good cause to arouse suspicion, especially in young people, are hardness of hearing, impairment of eye sight, simulating of typhoid or other fevers, various kidney troubles, nephritis, diabetes, cystitis, prostatic hypertrophy, lumbago, sciatica, paralysis, insanity, to which may be added diseases of the stomach, liver troubles, and nearly all the ills which human flesh is heir to.

The percentage of syphilitic infections in this locality from my viewpoint, I estimate to be about 20 per cent. of a general population. And of these about 40 per cent. are ascribed to the women, and 60 per cent. to the men. The best time to undergo treatment is the time which is counted from the first two to eight weeks, and

those who receive the proper care at that time may entertain good hopes for a cure. These, when they appear with their troubles, will complain of some, or all of the symptoms of headache, bone pains, sores in mouth and throat, skin rashes, swellings of the glands, sore throat, rapid loss of hair and weight, indigestion, malaise, migraines, neurasthenia, psychesthenia, insanity and paralysis. The above named signs may nearly all make their appearance, yet, if only one or two are seen, that does not indicate it to be a light case. There are instances where people have gone on for years, even as many as twenty years or more without experiencing much tribulation, and then will present serious disability. In such instances a correct diagnosis is invaluable. When investigating as to the above named symptoms it must be remembered that also other diseases may show these signs and the Wassermann blood test and other means are indicated in order to make sure of the correct diagnosis.

Syphilis in the first stage I find to be highly contagious, and in the second stage I consider it to be just about in a similar degree, communicable.

At this time treatment should be vigorous and continuous in the hands of a physician until the completion of the third year, with an occasional rest or intermission, when indicated. If neglected or unduly interrupted at this time, that is, the first three years the disease may go on beyond control ineradicable for many years or for life, and often leading to an early grave.

The third stage is not so dangerous for infection, but that is the time which determines in every conceivable decrepitude and is marked by shattering of the nervous system, softening of the brain, ulcers, glandular swellings, spinal and cerebral diseases, syphilis of the circulation, locomotor ataxia, general paresis, apoplexy, insanity, and apparently no tissue is exempt from the liability of sustaining an attack.

This disease may show its self for a year, disappearing after slight treatment, yet still remaining in the body. At this time a close watch should be kept, and at the first sign make every effort to stamp it out altogether. I have seen patients who seem to be well in a month's treatment but careful observation proved it to be still there and requiring additional careful medication.

Allow me to dispute the statement proclaimed by the dogma once syphilis always syphilis. On the contrary in many cases it is curable, if taken soon enough, but not in a week or a month. It requires three years of more or less continuous management with careful and sensible supervision. The patient should always be on his guard

lest he infect others. The physician will give him warning and instructions.

Syphilis I find to be heredity, although there are occasional exceptions such as one of my patients, a syphilitic mother, who gave birth to a healthy child without the taint, yet others following had the disease. A regrettable revelation is made when a young mother has succeeded in concealing lapses of former years, but when the first child comes it reveals the dreaded infection through heredity. In many instances abortion is caused by syphilis, and should always be investigated by a Wassermann test, the same should be done in diabetes and nephritis.

*Treatment*—In regard to the treatment as to medicinal remedies for this insidious infection, I have used all the intravenous preparations sent out on the market for obtaining a cure, and I find that some benefit may be received from every one of them when carefully applied with some degree of common sense. But I find that salvarsan, the 606 is by far the best, and gives better results and more efficient elimination of the disease than anything else in my experience. I have often given it in my office, administered by the gravity method and never had untoward results. The patient must be well prepared, take the remedy on an empty stomach, and for five hours after the treatment abstain from all foods. The careful examination of the heart and kidneys, with urine analysis, during the administration of the treatment, when the patient displays air hunger cyanosis and snatching for breath and at other times the face becomes flushed, eyes red, choking sensation, such condition is the indication of reaching the limit, and demands an immediate cessation from treatment during that seance. I have given more than 2000 intravenous treatments with salvarsan or 606 without experiencing any evil results. The treatment must be accompanied with use of mercury. No case of syphilis was ever cured by salvarsan alone. It is salvarsan and mercury carefully administered under the management of the physician until the end of the third year, with proper interruptions, which gives prospects for a complete cure.

Salvarsan is given once a week for eight weeks, and with it mercury at the same time. At the end of eight weeks a rest is given for about four to six weeks, no longer, then the Wassermann blood test should be used, this will generally reveal the infection if present. Yet some times it will fail and then again it will show if taken at another time, therefore other means of diagnosis should not be overlooked.

There are three ways of using mercury: First—By the mouth. Second—Intermuscularly with

the hypodermic. Third—By inunction, by rubbing in the ointment. I find inunctions with the ointment of mercury to be by far the best method, being most reliable and certain to bring results but it must be rubbed in well by a competent person who has the skill and honesty to make a good application.

In those instances in which the initial lesion disappears upon the use of the intravenous salvarsan in the course of a week or two, the patient may declare himself cured and refuse to return for further treatment. Then it becomes the duty of the physician to enlighten the patient about his serious mistake, and show him by the Wassermann blood test, and with the use of plain language, not to be deceived before he is out of the woods.

There is also the interspinal use of salvarsan. It is advisable in nervous syphilitics who have cystic troubles, especially dribbling of the urine at night especially when asleep, the intravenous treatment should first be used, and if not responding then go over to the spinal treatment which then may possibly give marvelous relief. The interspinal method also has been known to bring about wonderful healing and restorative results in locomotor ataxia, and in paralysis of the lower extremities. It is certainly very effective in relieving the lightning pains of nerve syphilis and gastric crisis locomotor ataxia.

No case of syphilis should be discharged as cured, until the Wassermann blood test of the spinal fluid is found to be negative.

When giving the salvarsan treatment, if the wrist and forearm show redness it should be at once discontinued, or there will follow the danger of a serious dermatitis, which may extend over the whole body and require months to overcome. When the patient begins not to take the salvarsan well, stop it, or there may follow a serum apoplexy.

It is within the province of this paper to make a reference, at least, to the subject of eugenics, because, if properly observed that will form a powerful means of aid in reducing the prevalence of syphilitic infection. When contemplating marriage the parties should submit to the honest and honorable examination of the medical adviser, and the procedure should not be prefunctionary but thorough including of the Wassermann blood test. If this does not prove negative let the nuptial be postponed until a cure has been effected. Parents, and especially mothers should give this requirement their undivided attention, and demand its observance with such determined insistence, that even their consent to the union be refused unless the parties are found fit to enter

upon the relations of husband and wife free from the taint. In the case when marriage is contracted without the preceding eugenic investigation and then, in the course of events, if the presence of syphilis is seen after marriage, that in itself should be a sufficient cause for procuring a divorce. But even if syphilis is contracted at a later period that likewise should constitute a legal cause for procuring a separation by divorce. The evil is so great the remedy must be commensurated and enforced with scrupulous fidelity.

In animal economy the industries are kept under careful surveillance, and if animals show signs of impure stock, vicious disposition or disease, they are obliterated from the herds, in order to protect the sound and profitable cattle.

Should not the members of the humane society much rather than the common stock of the pastures be safeguarded and protected with diligent inspection and wise enactment?

How many mothers instruct their daughters at the age of puberty about the delicate mysteries of womanhood at the very time when this becomes useful and imperative? Mothers should never neglect this sacred duty towards their beloved girls and boys, and take heed lest otherwise these their blessings from heaven are imbued with information from the unclean sources of vitiated playmates, or from degenerates. When the best instructions obtainable have been intelligently given, it furthermore remains incumbent to plant deeply in the breasts the sound principles of justice, truth and purity, because Cicero said, "drive out nature with the pitch pork, and yet she will return."

Now comes the appeal from the very heart and from the innermost soul of the physician, by which he is inspired to cry out to the whole world, but most of all, to the loving hearts of the mothers. In the polished periods of the sweet toned voice of Cicero with the captivating eloquence of demonstrations, with the irresistible power of the conquering Cæsar, for the love of humanity and the welfare of society to stand together as a unit in every avenue of social life to wage a winning war against the dangerous and destructive venereal enemy of health, happiness, and life itself, let gatherings be organized for every month in every section of this locality with conferences and lectures that when the dark ignorance on this subject is dispelled the effulgent light of education may fill every member of the community with the radiant light of pure mindedness, and the fragrant bloom of modesty and sweet odor of purity and chastity in mind and body arise as an odor of innocence at all times.

Even the pagans and barbarians amongst the

natural virtues of justice, sobriety, industry, patriotism prized as the highest of all, the tenderest and reverential veneration, the incomparable virtue of purity and chastity. Shall a Christian people be less high minded and hesitate to raise the natural virtues to the highest standards of the supernatural with a studious intelligence and a loving enthusiasm? Let every person take up the battle cry of the physician amidst answering determination to root out the black evil never more to return, syphilis.

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### MILWAUKEE SANITARIUM, WAUWATOSA, WISCONSIN

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(For Mental and Nervous Diseases)

Doctor Richard Dewey wishes to announce the appointment of Doctor Rock Sleyster as his successor to the position of physician in charge of the Milwaukee Sanitarium.

Doctor Sleyster scarcely needs an introduction to the medical profession, his years of experience in nervous and mental diseases as a medical superintendent in the state hospital service, his work as secretary of the State Medical Society of Wisconsin, editor of the Wisconsin Medical Journal, chief of the Bureau of Post Graduate Medical Study, University of Wisconsin, and his war service as Major M.C., assigned to duty as medical aide to the governor, have won for him general and well deserved recognition.

Doctor Dewey will continue to reside in Wauwatosa and will be in regular attendance at the sanitarium acting as medical director.

The Milwaukee Sanitarium also makes the further announcement that Doctor William Theodore Kradwell, Captain M.R.C., for over ten years a highly valued associate, is about to return from army service in the neuro-psychiatric division and resume the position awaiting him here as assistant superintendent.

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### ELECTION OF OFFICERS FEDERATION OF STATE MEDICAL BOARDS OF THE UNITED STATES, CHICAGO

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Dr. Bowers reported for the committee on nominations as follows: President, Dr. David A. Strickler, Denver, Colo.; vice-president, Dr. Henry W. Briggs, Wilmington, Del.; secretary-treasurer, Dr. Walter L. Bierring, Des Moines, Iowa; to fill the vacancy on the executive committee created by the expiration of the term of service of Dr. John M. Baldy, Philadelphia, Dr. Baldy was chosen to be his own successor.

The report of the committee on nominations was adopted, and the secretary was instructed to cast the ballot of the Federation for the election of the nominees.

# The Journal of the Iowa State Medical Society

D. S. FAIRCHILD, Editor.....Clinton, Iowa

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OFFICE OF PUBLICATION, DES MOINES, IOWA

Vol. IX. June 15, 1919 No. 6

## DES MOINES MEETING OF THE IOWA STATE MEDICAL SOCIETY

The recent convention of the Iowa State Medical Society in Des Moines was much like similar conventions of the Society when the meetings are held in Des Moines. The central location is of much importance in attracting members. The bad condition of the roads deterred many who have become unfamiliar with other means of transportation than automobile.

The State Dental Association held its sessions in Des Moines at the same time and while the two conventions caused some congestion in the hotels yet there was observed more than a compensating social advantage.

The place made for themselves by the dentists in the last two or three years is worthy of particular note. During the late war dentists did more than their part. No class of professional men offered themselves so freely and their services to the soldier cannot be overestimated. It may seem a little strange to medical men but the fact is they were better organized and at once functionated in the most advantageous manner from the first. The skilled dentist has some advantages over the surgeon in that his work shows for itself. The surgeon may say that he is a great man and often passes as such if he is careful not to keep up his immediate or follow-up records, but the dentist's work is so near the surface that the layman can make his own observations. It is to be hoped that the medical practitioner and the dentist may come closer together and that oral

surgery will be recognized as a branch of general surgery. We regard it as a most fortunate coincidence that the two associations meet at the same time and place.

The committee on program was more than commonly fortunate in their selections. The address by Dr. Frank Norbury of Springfield, Ill., was most opportune.

Dr. Norbury brought out the observations of the "National Committee for Mental Hygiene" attached to the Surgeon General's for the purpose of considering the nervous and mental condition of soldiers. The records made by this committee will be of permanent value in making the history of the war. Certain terms which were introduced for convenience during the war were given a true evaluation by the committee.

Dr. J. Moores Ball of St. Louis, formerly of Waterloo, delivered an interesting address entitled "Great Artists and Famous Anatomists." Dr. Ball for many years has been a student of ancient things in relation to medicine and it has been the good fortune of the writer to read many of his productions. Studies like these have apparently been Dr. Ball's recreation fads.

Dr. Dean Lewis of Chicago, for whom we all have a lively affection, reviewed in an interesting and profitable manner the best observations on war wounds and bone injuries.

President Max E. Witte whom we have come to regard with a warm affection presided with a dignity that excited our admiration and together with his admirable address leaves an abiding impression of the dignity and character of a president of the Iowa State Medical Society.

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## TRUSTEES

J. W. Cokenower, Des Moines.....	1922
W. B. Small, Waterloo.....	1921
T. E. Powers, Clarinda.....	1920

## DELEGATES TO A. M. A.

W. B. Small, Waterloo.....	1921
J. C. Rockafellow, Des Moines.....	1920
M. N. Voldeng, Woodward.....	1920

## ALTERNATE DELEGATES

W. W. Bowen, Fort Dodge.....	1921
B. L. Eiker, Leon.....	1920
J. C. Langan, Clinton.....	1920

## COUNCILORS

Term Expires

First District—John R. Walker, Fort Madison.....	1920
Second District—Henry Albert, Iowa City.....	1922
Third District—W. A. Rohlf, Waverly.....	1921
Fourth District—Paul E. Gardner, Chairman, New Hampton.....	1924
Fifth District—Geo. E. Crawford, Cedar Rapids.....	1923
Sixth District—O. F. Parrish, Grinnell.....	1923
Seventh District—Channing G. Smith, Granger.....	1924

Eighth District—Samuel Bailey, Mt. Ayr.....	1924
Ninth District—A. L. Brooks, Audubon.....	1922
Tenth District—W. W. Beam, Rolfe.....	1921
Eleventh District—G. C. Moorehead, Secretary, Ida Grove.....	1920

### SOME THOUGHTS PLEASANT, AND SOME NOT

We have been following the daily press since the close of the war for some indications of an interest in public health, during the reconstruction period and even after people had returned to normal conditions of life.

Always before after a great war sickness has been more or less widespread; even epidemics more or less serious and extended, but the press has not shown the slightest interest in relation to public health as if it were of no consequence.

It is not so in England. There matters of public health are an important part in the platform of the various political parties and serious consideration is given to conditions that may affect public welfare as better housing, health insurance, and plans for an efficient health service.

The influence of sanitary inspection on the health of soldiers has been so important that there has been no question of the value of health supervision and the complete indifference to health measure immediately following the war would appear strange if we did not know how much more importance is attached to commercial and political interests. Some of our newspapers seem to devote all their energies to compromising the present administration and are more interested in destroying the influence of President Wilson than in safeguarding the welfare of nations. The New York Medical Journal in a strong editorial deplores the indifference of the American people to public health and cites the observations of exemption boards; no wonder, then, that the medical examinations of the draft boards in the rejection, because of physical defects of over a third of the registrants for military service. A large proportion of the defects represented preventable or remedial conditions. When one sees what can be accomplished by reasonably well conducted health work, it is amazing to observe the apathy with which the general public still views matters of public health. With all our boastfulness it is painfully true that we are gradually falling behind other nations physically and in moral fibre.

How much of this disregard for the finer development of our race is due to the medical profession and how much to the apathy of the people to anything that does not bring immediate money returns, we are not in a position to say. We have a suggestive letter from one of the ablest and best

informed members of the present legislature who says that the medical profession is not regarded with much favor by legislators and cannot expect much from them. We wonder if it would not be better for us, if we abstained from all contention about schools of medicine, which is looked upon as a selfish interest. When it is said that not long back it was necessary for the legislature to pass a law to protect the people from the greed of physicians in exploiting the public in the matter of fee splitting and other commission practice, what can we say? We are sure that thirty years ago no such arraignment of the profession would be made by law makers. In fact from 1840 to 1880 a large per cent. of the prominent members of the medical profession served in the House or Senate. But then commercialism had not come to dominate all classes of society.

We have come more and more to believe that the legislative activities of the medical profession as such should be limited to public service. If the people want chiropractors, or osteopaths, the public will have them regardless of law or our wishes. Many of us remember the profits of typhoid fever seasons, of diphtheria, scarlet fever and other infectious diseases. What a harvest those seasons would be now with our automobiles, instead of visiting our patients once in two or three days with horse and buggy, we could visit morning and night; think of the fine bills. We do not want those days back, we look upon the almost entire disappearance of these diseases as one of the great triumphs of scientific medicine. The public do not want them back. But the public do not understand that there are conditions almost hidden from general view that are silently undermining public health and morals which, while they do not empty the home of loved ones in the dramatic way of an epidemic of diphtheria in the old days, wait until middle life.

The commercial public has discovered tropical countries which were practically closed to civilized people on account of the prevalence of dangerous tropical infectious diseases, now opened to profitable traffic, but how? Who troubles himself to find out? How many even of the medical public have read the reports of the Rockefeller Foundation. How many who purchase gasoline, even doctors, and have condemned the accumulation of wealth without stint know that it was not the governments of the people who made the safe tropical traffic possible, but private enterprise? It is only by careful study of the vast extent of health activities that we realize the magnitude of the subject and what the possibilities are. How can the average legislator or congressman know of the subject? There is a vast amount

of literature on the subject but who reads it? We have in mind a great influence residing in the county medical societies which should organize campaigns of education that would reach the public in matters of public health. It is interesting to listen to some medical essayist who reports his first 1,000 operations for appendicitis or 100 successful gall-bladder operations or 100 hysterectomies without a death, but this does not help the public except in exciting their admiration for the great surgeon and helps them to decide which surgeon they want for the next operation. It is our firm belief that the county society can bring home to the multitude of communities what liberal appropriations in the hands of highly trained experts can do for the public, what has been done and what is being done by generous private foundations. Legislation is certain to follow intelligent and informed public demands.

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#### MEDICAL VETERANS OF THE WORLD WAR

Colonel F. F. Russell, Army Medical School, Washington, D. C., is secretary of the temporary organization of Medical Veterans of the World War, and those interested may obtain application forms for membership from him. Physicians who rendered service to the government during the war as officers in the Medical Corps of the Army, Navy or Public Health Service, as contract surgeons in the Army or acting assistant surgeons of the Public Health Service, as medical members of local boards, or members of medical advisory boards, are eligible for membership.

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#### SIR THOMAS H. GOODWIN AWARDED THE DISTINGUISHED SERVICE MEDAL

The United States Government has awarded the Distinguished Service Medal to Sir Thomas H. Goodwin, C. M. G., D. S. O., director general of the British Army Medical Services. Colonel Goodwin represented the Royal Army Medical Services in the Surgeon General's office, Washington, D. C., as liaison officer, and spent several months in the United States.

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#### THE ADMISSION OF WOMEN TO THE STUDY OF MEDICINE AT THE MCGILL UNIVERSITY

On Friday, May 10, the corporation of McGill University admitted women to the study of medicine by adopting in full the following resolution which had been sent forward from the medical faculty:

That the faculty recommend to the corporation that women be admitted to the study of medicine provided they had taken a degree in arts from a recognized university; or that they take the double course of B.A. and M.D., or B.Sc. and M.D. at McGill University; or that they have completed the first and second year in the faculty of arts at McGill University, and thus give evidence that they are sufficiently mature and otherwise qualified to take up the study of the professional branches. The faculty further recommend that inasmuch as in certain subjects, separate laboratory accommodation and equipment are highly desirable, a strong appeal be made for some addition to the available funds of the medical faculty.

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#### TUBERCULOSIS A WAR PROBLEM

The September number of the American Review of Tuberculosis is devoted to the publication of the papers read before the fourteenth annual meeting of the National Tuberculosis Association, Boston, June 6, 1918, mostly considered from the standpoint of war conditions.

The interest and importance attached to tuberculous disease in civil life, in times of peace, brings a deeper interest in time of war, when a great army of men are gathered in camps. Certain facts are known in relation to infection, development and progress of the disease, both touching the tuberculous patient himself and those with whom he comes in contact. The dangers of active service in latent cases, and the danger of infecting healthy men, is shown by Dr. Bushnell on an investigation of the number of tuberculous soldiers sent to camp without a diagnosis. From this investigation, he determined in a measure, the risk of the measures generally employed in detecting early cases.

It was found that the risk to the individual command was small from tuberculous infection. Of 1,406,498 men examined, 11,020 were rejected on the diagnosis of tuberculosis or 0.783 per cent. A further examination indicated that a large per cent. of the cases diagnosed as tuberculosis were in fact cases of bronchopneumonia with delayed recovery. To obviate the error of withdrawing, so many men from the service it was suggested that no rejection should be made unless the sputum revealed the presence of tubercle bacteria in the hands of a trained specialist.

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#### ARMY DEATH RATE FOR DISEASE

American troops both here and overseas continue to establish good health records. For the two months' period ending August 31 the combined reports of the American Expeditionary

Forces and all troops stationed in the United States show an annual death rate for disease of 2.18 per 1,000—a fraction more than two men per 1,000 per year. The annual death rate for disease of men of military age in civil life is 6.7 per 1,000. The combined reports show that generally the health of the soldiers overseas is better than that shown by the men in training in this country. This is largely due to the fact that only men in the best physical condition are being sent to France, with the result that the reports of the troops in America carry the men unfit for overseas duty.

#### AMERICAN NURSES HONORED

Ten American Army nurses have been awarded the *Medaille de' Honneur des Epidemics* by the French Government, according to word that has just reached national Red Cross headquarters. The presentation ceremony took place at A. R. C. Military Hospital No. 112, Auteuil, in the presence of a distinguished gathering, twenty-three officers of the American Medical Corps and seven enlisted men of the Army receiving the decoration at the same time.

The nurses honored by France were: Bessie Mae Warwick, McDonald, Pa.; Rose A. Cassidy, Brandywine Summit, Pa.; Karen M. Lauridsen, Astoria, Ore.; Agnes W. Reid, La Crosse, Wis.; Pearl Worley, East Greenville, O.; Edith L. Hadsall, New Rochelle, N. Y.; Lillian E. Radcliffe, Montreal, Can.; Esther V. Hasson, Washington, D. C.; Myrtle Brondel, address not given, Mary C. Cavin, address not given.

#### ABSORPTION OF POISONS AND DRUGS FROM THE URETHRA

Dr. David I. Macht of Johns Hopkins Pharmacological Laboratory in some experimental work published in the *Journal of Urology* for June, 1918, finds that a large number of drugs and poisons can be and are absorbed from the urethra but that the absorption power of the bladder is very poor as compared with that of the urethra. These observations are not only of scientific interest but are also of practical importance. Poisoning through the urinary tracts has been reported and is not uncommon. On studying such cases it will be found that absorption of drugs or poisons in them occurred for the most part through the urethra. This holds good not only in cases of the male but also in the female. Absorption from the prostatic urethra in urological practice is not unknown. In gynecology poisoning from the short female urethra

has also been described, especially cocaine poisoning.

#### PRIMARY HYDRONEPHROSIS

Drs. John T. Geraghty and William A. Frontz in the *Journal of Urology* has made a study of "Primary Hydronephrosis." After considering questions of movable kidney, aberrant blood-vessels and other obstructive conditions that may or may not produce secondary hydronephrosis the evidence leads the authors to believe that movable kidney is many times secondary to hydronephrosis and that we should look further for the cause of the hydronephrosis. He finds much evidence to show that abnormal insertion of the ureter is a most important factor in producing the condition of the kidney under consideration. A study of the embryology of the ureter and the kidney apparently presents much evidence in support of the clinical findings from a thorough study of operated cases. If the studies of Geraghty and Williams reveal the true condition which underlay a large per cent. of cases of "primary" hydronephrosis a new interpretation must be placed upon secondary hydronephrosis alleged to be due to ureteral obstructions from kink of the ureter from movable kidney or from anomalous blood-vessels and place primary hydronephrosis as a cause of renal mobility in a considerable number of cases, thus reversing the generally accepted relationship.

#### SENATE FILE NO. 208—EDUCATIONAL INSTITUTIONS

By Haskell

February 13, 1919.

##### A Bill for an Act

To provide free hospital service and medical and surgical treatment for persons who are afflicted with a malady or deformity which can probably be remedied by such service and treatment, and who are unable to pay for the same; providing for the expense thereof; and prescribing the jurisdiction of the district and superior courts in said cases.

Be it Enacted by the General Assembly of the State of Iowa:

Section 1. Whenever it shall appear to any physician, county supervisors, township trustee, public health nurse, overseer of the poor, policeman, priest or minister that there is any legal resident of his or her county over sixteen years of age, afflicted with any malady or deformity which can probably be remedied by proper care and medical or surgical treatment, if said person, or the parent, parents or guardian, or other person having legal custody of said person, as the case may be, is unable financially to provide proper care and medical or surgical treatment, it shall be the duty of such physician, county supervisors, township trustee, public health nurse, overseer of the poor, policeman, priest or minister to report the same to the judge of the district or

superior court having jurisdiction in the county in which said person resides. Upon the filing of such report with the judge of the district or superior court as aforesaid, he shall appoint some physician who shall personally examine said person with respect to the malady or deformity. Such physician shall make a written report to said judge, giving such history of the case as will likely to aid the medical or surgical treatment of such deformity or malady, and describing the same, all in detail, and state whether or not, in his opinion, the same can probably be remedied. Such report shall be made within such time as may be fixed by the court and upon blanks to be furnished as hereinafter provided. It shall also be the duty of said judge to have a thorough investigation made by the county attorney of his county regarding the financial conditions of the said person, or of the parent or parents, guardian or other person having legal custody of said person, as the case may be.

Sec. 2. Upon the filing of such report or reports, said judge of the district or superior court, as aforesaid, shall fix a date for the hearing upon the complaint and shall cause the person, or the parent or parents, guardian or other person having legal custody of said person, as the case may be, to be served with a notice of the hearing and he shall also notify the county attorney who shall appear and conduct the proceedings and, upon such complaint, evidence may be introduced. If the judge finds that the said person is suffering from a deformity or malady which can probably be remedied by medical or surgical treatment or hospital care, and that the person, or the parent or parents, guardian or other person having legal custody of said person, as the case may be, is unable to pay the expenses thereof, said judge may, with the consent of the said person, or parent or parents, guardian or other person having legal custody of said person, as the case may be, enter an order directing that the said person shall be taken to the hospital of the college of medicine of the state university of Iowa at Iowa City for proper hospital care and medical or surgical treatment; the expense of such hospital care and treatment to be met in the manner hereinafter provided. Provided, that no such person shall be received into said hospital of the college of medicine of the state university of Iowa for care and treatment, unless, in the judgment of the admitting physician, there shall be a reasonable probability of such person's being benefited by such hospital care and medical or surgical treatment.

Sec. 3. It shall be the duty of the admitting officer of the said hospital of the college of medicine of the State University of Iowa, upon receiving any such person, to provide a proper bed in said hospital and to assign or designate the clinic of the said hospital to which such person shall be assigned for treatment; and the physician or surgeon in charge of said person shall proceed with proper care to perform such operation and bestow such treatment upon said person as, in his judgment, shall be proper and necessary. A proper and competent nurse shall also be assigned to look after and care for said person

during such hospital care and medical or surgical treatment, as aforesaid.

Sec. 4. No compensation shall be charged or received by the admitting officer of the medical faculty, or by the physician or surgeon or nurse who shall treat and care for such persons, other than the salaries received by them provided by the Iowa state board of education.

Sec. 5. The superintendent of the hospital of the college of medicine of the State University of Iowa shall keep a correct account of all medicine, nursing, food and necessities furnished to said persons and shall make and file with the state board of audit of the State of Iowa an itemized, sworn statement of all expenses incurred at said hospital in the treatment, nursing and care of said persons.

Sec. 6. The state board of audit, upon being satisfied that the same is correct and reasonable, shall approve the same and shall direct that warrants be drawn by the auditor of state upon the treasurer of state for the amount of said bills as they are allowed from time to time; and the said warrants, as drawn by the auditor of state on the treasurer of state, shall be forwarded to the treasurer of the State University of Iowa, and the same shall be by him placed to the credit of the university funds which are set aside for the support of the state university hospital; and the treasurer of state shall pay the said warrant from the general funds of the state not otherwise appropriated.

Sec. 7. The court or judge may, in his discretion, appoint some person to accompany said patient from the place where he may be to the hospital of the college of medicine of the State University at Iowa City, Iowa, or to accompany said patient from the said hospital to such place as may be designated by the court, the said patient or the parent or parents, guardian or other person having legal custody of said patient, as the case may be, consenting. The physician appointed by the judge of the district or superior court as aforesaid to make examination and report shall receive therefor the sum of \$5.00 (five dollars), together with the expenses incurred by him in making such examination; and the said charges for services and expenses, and all expenses incurred in conveying such person to and from the said hospital of the college of medicine of the State University of Iowa, shall, when approved by the judge ordering such services, be filed with the superintendent of the state university hospital and charged on the regular bill for maintenance, provided that if the party conveying said patient to or from said hospital is a salaried officer of a township, a county, a city, or a state institution, or a member of the patient's immediate family, said officer or relative shall receive no per diem but only his actual traveling expenses. If another person is appointed to conduct said patient to and from said hospital, he shall receive compensation, in addition to his traveling expenses, in the sum of \$3.00 (three dollars) a day.

Sec. 8. The superintendent of the hospital of the college of medicine of the State University of Iowa or other person designated by the authorities in con-

trol thereof may pay the actual, reasonable and necessary expenses of returning the said patient to his home, and pay the attendant not to exceed \$3.00 (three dollars) a day for the time thus necessarily employed, provided that if such attendant is a salaried officer of a township, a county, a city or a state institution, or a member of the patient's immediate family, he shall receive the actual, reasonable and necessary expenses incurred in accompanying said patient to his home. Such per diem and expenses shall be itemized and verified and presented to and allowed by the state board of audit in connection with the bills for hospital maintenance as hereinbefore provided.

Sec. 9. The medical faculty of the hospital of the college of medicine of the State University of Iowa shall, immediately upon taking effect of this act, prepare blanks containing such questions and requiring such information as may be necessary and proper to be obtained by the physician who examines the patient under order of court; and such blanks shall be printed by the state and a supply thereof shall be sent to the clerk of each district and superior court of the State of Iowa; and the physician making such examination shall make his report to the court in duplicate on said blanks, answering the questions contained therein and setting forth the information required thereby, and one of said duplicate reports shall be sent to the hospital of the college of medicine of the State University of Iowa with the patient, together with a certified copy of the order of the court. The state board of audit shall audit, allow and pay the cost of the bills as other bills are allowed and paid for public printing.

## SENATE FILE NO. 277—EDUCATIONAL INSTITUTIONS

By Holdoegel

February 21, 1919.

### A Bill for an Act

To establish a state psychopathic hospital especially designed, equipped and administered for the care, observation and treatment of persons who are afflicted with abnormal mental conditions.

Be it Enacted by the General Assembly of the State of Iowa:

Section 1. There shall be established a state psychopathic hospital, especially designed, kept and administered for the care, observation and treatment of those persons who are afflicted with abnormal mental conditions.

Sec. 2. It shall be known as the State Psychopathic Hospital, and shall be located at Iowa City, Iowa, and connected with the College of Medicine of the State University of Iowa.

Sec. 3. The said State Psychopathic Hospital shall be under the control of the Iowa State Board of Education.

Sec. 4. The said Iowa State Board of Education shall have full power to manage, control and govern the said hospital the same as other institutions already under its control.

Sec. 5. The said Iowa State Board of Education shall appoint a medical director of the said hospital, who shall serve as professor of psychiatry in the College of Medicine of the State University of Iowa.

Sec. 6. The medical director of the said hospital shall seek to bring about systematic co-operation between the several state hospitals for the insane and the said State Psychopathic Hospital. He shall be the director and in sole charge of the clinical and pathological work of the said hospital. He shall, from time to time, visit the state hospitals for the insane, upon the request of the superintendents thereof, or upon the request of the board of control of state institutions, and may advise the medical officers of such state hospitals for the insane, or the said board of control, in subjects relating to the phenomena of insanity.

Sec. 7. Patients admitted to the said State Psychopathic Hospital shall be divided into four classes: First, voluntary private patients; second, committed private patients; third, voluntary public patients; and, fourth, committed public patients. All voluntary private patients and committed private patients shall be kept and maintained without expense to the state, and the voluntary public patients and committed public patients shall be kept and maintained by the state.

Sec. 8. Voluntary private patients may be admitted in accordance with the regulations to be established by the Iowa State Board of Education; and their care, nursing, observation, treatment, medicine and maintenance shall be without expense to the state. However, the charge for such care, nursing, observation, treatment, medicine and maintenance shall not exceed the cost of the same to the state.

Sec. 9. Persons suffering from mental diseases may be admitted as committed public patients as follows: Any physician authorized to practice his profession in the State of Iowa or any citizen of the state may file information with any district or superior court of the state or with any judge thereof, alleging that the person named therein is suffering from some abnormal mental condition that can probably be remedied by observation, treatment and hospital care; and that he is, of himself or through those legally responsible for him, unable to provide the means for such observation and hospital care. Said judge of the district or superior court may, upon his own motion or upon the information contained in such report filed as aforesaid, appoint some physician who shall personally examine said person with respect to his mental condition. Said physician shall make a written report to the said judge, giving such a history of the case as will be likely to aid in the observation, treatment and hospital care of said person and describing the same all in detail, and stating whether or not, in his opinion, the said person would probably be helped by observation, treatment and hospital care in said State Psychopathic Hospital. Such report shall be made within such time as may be fixed by the court. It shall be the duty of the said judge to have a thorough investigation made by

the county attorney of the county in which the said person resides, regarding his financial condition and the financial condition of those legally responsible for him.

Sec. 10. Upon the filing of such report or reports, said judge of the district or superior court as aforesaid shall fix a day for the hearing upon the complaint and shall cause the person or those legally responsible for him to be served with a notice of the hearing; and he shall also notify the county attorney who shall appear and conduct the proceedings; and upon such complaint evidence may be introduced. If the judge finds that the said person is suffering from an abnormal mental condition which can probably be remedied by observation, medical or surgical treatment and hospital care, and that he or those legally responsible for him are unable to pay the expenses thereof, said judge shall enter an order directing that the said person shall be sent to the State Psychopathic Hospital at the State University of Iowa, for observation, treatment and hospital care as a committed public patient.

Sec. 11. When the patient arrives at said hospital it shall be the duty of the director or of some physician acting for him to examine the said patient and determine whether or not, in his judgment, he is a fit subject for such observation, treatment and hospital care. If, upon said examination, he decides that such patient should be admitted to the said hospital, the medical director shall provide him with a proper bed in said hospital; and the physician or surgeon who shall have charge of said patient shall proceed with such observation, medical or surgical treatment and hospital care as, in his judgment, are proper and necessary. A proper and competent nurse shall also be assigned to look after and care for such patient during such observation, treatment and care as aforesaid. If, upon such examination, the medical director decides that such patient is not a fit subject for admission to the State Psychopathic Hospital, it shall be the duty of the medical director, as hereinafter provided, to transfer said patient to the state hospital for the insane to which he would be committed under existing statutes if adjudged insane; and the superintendent of the said hospital for the insane shall receive him.

Sec. 12. If the said judge of the district or superior court, as aforesaid, finds from the physician's report which was filed under the provisions of Sec. 10 of this act, that the said person is suffering from an abnormal mental condition which can probably be remedied by observation, medical or surgical treatment and hospital care, and the report of the county attorney shows that he, or those legally responsible for him, are unable to pay the expenses thereof, said judge shall enter an order directing that the said person shall be sent to the State Psychopathic Hospital at the State University of Iowa for observation, treatment and hospital care as a voluntary public patient, provided that the said person, or those legally responsible for him, request the said court or judge to commit said person without the hearing which is required under the provisions of Sec. 10 of

this act. When the said patient arrives at the said hospital, he shall receive the same treatment as is provided for committed public patients in Sec. 11 of this act.

Sec. 13. If the said judge of the district or superior court, as aforesaid, finds in the hearing as provided for under the provisions of Sec. 10 of this act that the said person is suffering from an abnormal mental condition which can probably be remedied by observation, medical or surgical treatment and hospital care, and that he, or those legally responsible for him, are unable to pay the expenses thereof, said judge shall enter an order directing that the said person shall be sent to the State Psychopathic Hospital at the State University of Iowa for observation, treatment and hospital care as a committed private patient. When the said patient arrives at the said hospital, he shall receive the same treatment as is provided for committed public patients in Sec. 11 of this act.

Sec. 14. If patients of the State Psychopathic Hospital are transferred by the medical director to the general hospital of the College of Medicine of the State University of Iowa, all necessary expenses for the care of said patients while in the wards or rooms of the general hospital shall be paid to the general hospital by the said State Psychopathic Hospital.

Sec. 15. The court may, in his discretion, appoint some person to accompany said committed public patient or said voluntary public patient or said committed private patient from the place where he may be to the State Psychopathic Hospital of the State University at Iowa City, or to accompany such patient from the said hospital to such place as may be designated by the court. Any person appointed by the court or judge to accompany said person to or from the hospital or to make an investigation and report on any question involved in the complaint, other than the physician making the examination, shall receive the sum of three dollars (\$3.00) per day for the time actually spent in making such investigation (except in cases where the person appointed therefor receives a fixed salary or compensation) and his actual necessary expenses incurred in making such investigation or trip. The physician appointed to make the examination and report shall receive the sum of five dollars (\$5.00) for each and every examination and report so made, and his actual necessary expenses incurred in making such investigation, in conformity with the requirements of this act. The person making claim to such compensation shall present to the court or judge an itemized sworn statement thereof, and when such claim for compensation has been approved by the court or judge, the same shall be filed in the office of the county auditor and shall be allowed by the board of supervisors and paid out of the funds of the county collected for the relief of the poor. If the patient be a female, the person appointed to accompany her must be a woman. Whenever a patient is transferred to a hospital for the insane, it shall be the duty of the medical director of the State Psychopathic Hospital to designate an at-

tendant to accompany said patient from Iowa City, Iowa, to the said hospital for the insane; and the pay of said attendant in accompanying said patient to the said hospital for the insane and in returning home therefrom shall not exceed three dollars (\$3.00) a day for the time thus necessarily employed, and his actual, reasonable and necessary expenses incurred in accompanying said patient to the said hospital for the insane and in returning home therefrom. Said per diem and expenses shall be itemized and verified and presented to and allowed by the state board of audit in connection with the bills for maintenance as hereinafter provided; provided, however, that if the party accompanying said patient to the said hospital for the insane is a parent or other relative or an officer or employe receiving other compensation, the said person shall receive no per diem, but only his actual, reasonable and necessary traveling expenses.

Sec. 16. Every committed private patient, if he has an estate sufficient for that purpose or if those legally responsible for his support are financially able, shall be liable to the county and state for all expenses paid by them in behalf of such patient. All bills for the care, nursing, observation, treatment, medicine and maintenance of such patients shall be paid by the state board of audit in the same manner as those of committed and voluntary public patients as hereinafter provided, unless said patient or those legally responsible for him make such settlement with the medical director of said State Psychopathic Hospital. If the bills for such patient are audited by the state board of audit and paid by the state, it shall be the duty of the medical director of the said State Psychopathic Hospital to file a certified copy of the claim which has been audited by the state board of audit and paid by the state, with the auditor of the proper county, who shall proceed to collect the same by action if necessary, in the name of the State Psychopathic Hospital, and when collected, pay the same into the state treasury. The said medical director shall also, at the same time, forward a duplicate of the account to the state auditor. Unless said committed private patient or those legally responsible for him offer to make such settlement, it shall also be the duty of the county auditor of the proper county as aforesaid to proceed to collect, by action if necessary, in the name of the said county, the amount of all claims for per diem and expenses that have been approved by the said court or judge and paid by the county treasurer of said county as provided for under the provisions of Sec. 15 of this act, and when collected to pay the same into the county treasury.

Sec. 17. Until such time as the said State Psychopathic Hospital is actually treating and caring for one hundred patients, the medical director shall pay all moneys collected from voluntary private patients or from committed private patients into the state treasury. After said hospital is actually treating and caring for more than one hundred patients, all moneys collected from said patients shall be used for the support of the said hospital.

Sec. 18. The medical director of the State Psychopathic Hospital may discharge any patient in the following ways: First, as improved, or not likely to be benefited by further treatment; second, any patient of the State Psychopathic Hospital may be transferred by the medical director of the state hospital for the insane, in the district of which the said patient was a legal resident, whenever, after a satisfactory period of observation and treatment, it is found that said patient is insane and that further confinement at the State Psychopathic Hospital at the State University of Iowa is inadvisable; provided that whenever an insane person is to be transferred, due notice of such transfer shall be given to the judge who committed said patient to the said State Psychopathic Hospital, to the person making the application for the admission of said patient, and to the superintendent of the state hospital for the insane to which the patient is to be transferred.

Sec. 19. The state shall pay to the State Psychopathic Hospital, out of any money in the state treasury not otherwise appropriated, all expenses for the administration of said hospital, and for the care, treatment and maintenance of committed and voluntary public patients therein, including their clothing and all other expenses of said hospital for said public patients. The bills for said expenses shall be rendered monthly in accordance with rules agreed upon by the state board of audit and the finance committee of the Iowa State Board of Education, provided that until such time as the said hospital is actually treating and caring for one hundred patients, the sum of nine thousand dollars (\$9,000) per month, or as much thereof as may be necessary, is hereby appropriated, out of any money in the state treasury not otherwise appropriated, for the support and maintenance of said hospital.

Sec. 20. The medical faculty of the hospital of the College of Medicine of the State University of Iowa shall, immediately upon the taking effect of this act, prepare blanks containing such questions and requiring such information as may be necessary and proper to be obtained by the physician who examines the patient under order of court; and such blanks shall be printed by the state and a supply thereof shall be sent to the clerk of each district and superior court of the State of Iowa; and the physician making such examination shall make his report to the court in duplicate on said blanks, answering the questions contained therein and setting forth the information required thereby; and one of said duplicate reports shall be sent to the State Psychopathic Hospital with the patient, together with a certified copy of the order of the court. The state board of audit shall audit, allow and pay the cost of the bills as other bills for public printing are allowed and paid.

Sec. 21. There is hereby appropriated, out of any money in the state treasury not otherwise appropriated, the sum of one hundred seventy-five thousand dollars (\$175,000) for the erection and equipment of a building for the State Psychopathic Hos-

pital at the State University of Iowa. Said sum shall be payable July 1, 1919, on the order of the Iowa State Board of Education.

### UNITED STATES FEDERAL TRADE COMMISSION DISMISSES COMPLAINT FILED AGAINST THE VICTOR ELECTRIC CORPORATION LAST JUNE

At a regular session of the United States Federal Trade Commission held in Washington, D. C., March 10, 1919, the complaint against the Victor Electric Corporation was ordered dismissed and discontinued. We congratulate the officers and members of the Victor organization on this vindication.

The personnel of the Victor organization is largely made up of pioneer workers in the x-ray and physical therapy field and we have always believed that these men, (who are directing the policies of the Victor Electric Corporation), have been actuated by a desire to elevate rather than to lower the standard of business ethics in their field.

The Victor corporation is to be congratulated upon having had this opportunity of having the government searchlight turned upon its activities, and the clean bill of health which the corporation has received should be an inspiration to its officers to continue to be guided by those ideals which should be kept in constant view by all who are engaged in an industry so closely allied to medical science.

Nish, Siberia, April 3 (by mail)—Nineteen American women doctors are now in the Balkans, assisting the American Red Cross in its work of caring for the sick and destitute. These doctors are from the American Women's Hospital at New York and are located in Serbia, Montenegro and Albania. Already their work has earned the warmest commendation of the government. Some of them have received decorations or been cited for conspicuous service among the soldiers and refugees.

In Serbia, where the most sickness and destitution exist, the following women physicians are at work: Dr. Marjorie Burnham of Ashtabula, Ohio; Dr. Mary H. Elliot of New York; Dr. Harriet M. Gervais of Dorchester, Mass.; Dr. Alberta M. Greene of Judith Bay, Mont.; Dr. Lulu Peters of New York; Dr. Marion C. Stevens of Reading, Mass.; Dr. Regina Flood Keyes of Buffalo, N. Y.; Dr. Mabel Flood of Elmira, N. Y.

Dr. Catherine M. Cook of Washington, Pa. and Dr. Dora E. Bowman of Kansas City, Mo., are assisting the American Red Cross doctors in Montenegro; Dr. Nell G. W. Bartram of Huntington, Pa.; Dr. Mary J. Hyndman of Philadelphia and Dr. Sarah E. Foulks of Burlington, N. J., are doing similar work in Albania.

Our advertisers are our true friends. Other things being equal, show your appreciation by patronizing them. Be sure to let them know that you saw their advertisement in our Journal.

### SOCIETY PROCEEDINGS

At a meeting of the Butler County Medical Society held April 30 at Greene, the following officers were elected: President, S. E. Bigelow, Greene; vice-president, D. N. Reeve, Allison; secretary-treasurer, M. B. Call, Greene.

A meeting of the Cedar County Medical Society was held at Tipton, May 22. The good program would have been enjoyed by a much larger attendance had it not been for the muddy roads. Dr. W. H. Rendleman of Davenport gave a very good paper on Diagnosis in the Upper Right Quadrant.

Dr. L. E. Shafer of Davenport gave a very interesting paper on The Surgical Treatment of Infected Wounds, with Special Reference to the Carrell-Dakin Technic.

It was decided to hold the next meeting in August, date and place to be decided upon later. The following were named as a committee to prepare resolutions relative to Dr. George Herschel of Mechanicsville, the member whose death occurred last March.

Dr. C. W. Baker, Stanwood,  
Dr. E. J. Van Metre, Tipton,  
Dr. P. M. Hoffman, Tipton,  
Committee.  
J. G. R., Sec'y.

The annual business meeting of Cherokee County Medical Society was held at State Hospital, Wednesday evening, February 19. The report of the secretary and treasurer showed an increase in membership and a prosperous financial condition. This society is proud of the fact that 50 per cent. of the membership were in active service during the war. Other members who volunteered but were not accepted because of physical disability rendered valuable service on local boards. The new officers elected are as follows: President, Dr. T. C. Knox; vice-president, Dr. R. G. Eaton; secretary and treasurer, Dr. Paul E. Allen; censor, Dr. J. H. Burlingame; delegate, Dr. P. B. Cleaves; alternate delegate, Dr. L. S. Brewer. Following the business session, Lieut. C. H. Johnson, who was home on furlough, gave an interesting talk on his experiences in oversea transport service and as surgeon in a large base hospital.

At the regular meeting of the Clayton County Medical Society held May 1 at Elkader, the following officers were elected: President, S. C. Ainsworth, Volga City; vice-president, W. H. Thomas, McGregor; secretary-treasurer, J. C. Brown, Littleport.

The Monroe County Medical Society will meet at Dr. C. J. Lukens' office, Thursday evening, May 1. The following program will be rendered:  
Report of Cases—Dr. J. B. Hungate.  
Sleeping Sickness—Dr. T. E. Gutch.  
Diseases of the Abdomen—Dr. H. C. Eschbach.  
Refraction—Dr. C. J. Lukens.

Light refreshments served after the meeting. Visiting physicians cordially invited to attend.

At the regular weekly meeting of the Webster County Medical Society at the Commercial Club rooms last evening Mayor Scott was invited to be present and confer with the members of the society in regard to the appointment of a full time city physician. After the proposition had been talked over the medical society appointed a committee consisting of Doctors C. J. Saunders, A. H. McCreight and J. W. Kime to confer with the city council at the next meeting which will take place on Tuesday morning.

The March meeting of the Woodbury County Medical Society was held March 13 at the West Hotel, Sioux City. Dinner was served at 6:30 o'clock and a program was given in the council chambers of the city building. An address of welcome to the members of the society who have returned from service was given by Dr. George Browning: "What the Army Expected of a Medical Officer in Foreign Service," by Dr. J. W. Shuman, and an address on "Domestic Service," by Dr. J. E. Reeder.

Program of the Northwestern Iowa Medical Society, Sheldon, Iowa, April 20:

Toxemias of Pregnancy—Dr. A. F. H. de Lespinasse. Discussion opened by Dr. H. L. Avery.

Twilight Sleep—Dr. J. E. North. Discussion opened by Dr. C. L. Roland.

Puerperal Hemorrhage—Dr. G. Maris. Discussion opened by Dr. F. J. McAllister.

Puerperal Eclampsia with case reports—Dr. F. J. Smith. Discussion opened by Dr. L. L. Corcoran.

Cæsarean Section—Dr. F. W. Cram. Discussion opened by Dr. F. S. Hough.

The Northwestern Iowa Medical Society was organized at Sheldon, Iowa, May 28, 1915. It includes the counties of Sioux, Lyon, Osceola and O'Brien and every legally registered physician in those counties who is of good moral and professional standing and who does not support or practice any exclusive system of medicine, is eligible to membership. Application for membership should be made to the secretary.

The officers are: President, Dr. A. J. Meyer, Hawarden; vice-president, Dr. C. L. Roland, Chatsworth; secretary-treasurer, Dr. Jay M. Crowley, Rock Rapids.

Censors: Dr. F. J. McAllister, Hawarden; Dr. Milo Avery, Pringhar; Dr. G. E. Vermeer, Sheldon; Dr. E. W. Bouslough, Little Rock.

The House of Delegates of the Medical Society of the State of New York adopted the following resolution at its annual meeting at Syracuse on May 6, 1919:

"Resolved, That the delegates from this Society to the House of Delegates of the American Medical Association be and are hereby instructed to introduce a resolution, against compulsory health insur-

ance, in the House of Delegates of the American Medical Association and to support it in every way possible."

## MEDICAL NOTES

### Health Expenditures of Texas for 1918

Quarantine \$51,920, rural health work \$45,000, venereal disease \$30,000, the health department including vital statistics department \$39,780. Total appropriated for health work \$166,700. Texas has about twice the population of Iowa.

### To Get Health Specialist

At the meeting of the council, Fort Dodge, the matter of engaging a city physician and bacteriologist who is specially trained for city health work will be considered. Whoever is chosen will devote his entire time to matters pertaining to the city health. It is the general custom in employing a full-time city physician to get a man who has been trained for this particular sort of work. A physician may be secured either from one of the medical colleges or perhaps some physician who has acquired considerable reputation for work of this kind in another city.

### Attention for Water and Milk

Milk inspection and better water for Fort Dodge are going to be the special care of the city council according to all the present signs. With the appointment of a city physician and bacteriologist who will devote all his time to city health, the condition of the present supply of water will undoubtedly receive attention from the health department as well as from the city council. Major Scott said today "The questions of water and milk are going to be considered absolutely."

According to figures given out by Dr. Guilford H. Sumner, vital statistician for the Iowa State Board of Health, deaths in Iowa from influenza in 1918 totaled 6,260; from pneumonia, 3,105; from bronchopneumonia, 713, making a grand total of 10,087 for Iowa alone.

Two hundred thousand dollars is the amount that will be raised for St. Anthony's Hospital in Carroll. An extensive campaign is about to be started in the counties of Calhoun, Sac, Crawford, Shelby, Audubon and Greene in addition to Carroll county to secure the necessary funds for a hospital and a nurses' home.

"The Minnesota," the handsome pleasure steamer owned by the Drs. Mayo of Rochester, Minnesota, touched at the local wharf at Muscatine for a brief period. On board were Dr. Mayo of Rochester, Minnesota, and Lieut.-Col. Richard Harte, the well known Philadelphia surgeon who headed the first Pennsylvania Red Cross hospital unit to be sent to France at the outbreak of the war. Dr. Harte was in France from soon after America declared war

until last October, when he was invalided home. Dr. Harte's experience in France was varied, ranging from active surgical work on the front lines to complete charge of a base hospital with more than two thousand beds. In a brief interview he praised the work of the Red Cross organization in France, declaring that whenever anything was lacking that was requisite for the necessities or comforts of the men under his charge, he always found the Red Cross organization an unfailing source of assistance and supply.

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### DEATHS

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Miss Jane A. Delano, who died April 15, at Base Hospital No. 8 at Sauvigny, France, was one of the foremost figures of the nursing world. It was under her direction that more than 30,000 nurses were recruited through the American Red Cross for service with the Army and Navy after the United States entered the great conflict. She was born in Watkins, New York, in 1862. Her father was killed in the Civil War and she was reared by her grandfather, a Baptist clergyman.

The call to relieve suffering humanity came to her while still a young girl and after her preliminary education she began fitting herself for the career in which she was destined to attain such great prominence.

Miss Delano graduated from Bellevue Hospital, New York, in 1886, and two years later rendered her first patriotic service to her country by volunteering to nurse yellow fever victims in Jacksonville, Florida. Up to the time Miss Delano and a few other courageous trained nurses went to Jacksonville from New York the fever patients had been cared for by some negro nurses who, while willing and devoted, lacked the scientific skill necessary to combat successfully the dread malady.

Although at that time medical science had not decided that the mosquito was a yellow fever carrier Miss Delano had reached that conclusion and had insisted on the use of mosquito netting by her nurses with the most satisfactory results.

Her work in Jacksonville finished, Miss Delano was called to Bisbee, Arizona, in 1889 to establish a hospital for one of the big copper companies. Two years later she was made superintendent of the nurses' training school of the University of Pennsylvania, a position she held for five years. Special courses in philanthropy and medicine further increased her knowledge and in 1900 she returned to Bellevue Hospital to direct the nurses training school there, continuing in that capacity until 1905.

When the American Red Cross, following the reorganization in 1905, entered into an agreement with the American Nurses Association for the purpose of developing a nursing reserve for the Army Nurses Corps, Miss Delano was appointed chairman of the committee in charge of the work.

She was also named as superintendent of the Army Nurse Corps by the Surgeon General in which capacity she visited the Philippine Islands, China,

Japan and Hawaii. Due to her untiring effort, 8,000 carefully selected nurses were available for government service at the time the United States entered the war, and her leadership was largely responsible for the success of the nurses recruiting campaign which followed.

Miss Delano served three times as president of the American Nurses Association and also served several years as head of the directorate of the American Journal of Nursing.

She was a woman of striking personality and appearance. Regal in carriage, a mass of snow white hair crowning a strong, but kindly face she was a commanding figure in any gathering. A gentle manner and sympathy that was boundless, won for her a great circle of friends.

Miss Delano served the American Red Cross from first to last without compensation—a full-time volunteer. She was the last of her family, her passport application, filed a few months ago, giving the name of a prominent nurse as her "nearest relative."

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Dr. S. U. Sayer, St. Charles, Iowa, graduated in medicine in Keokuk in 1881, died at St. Charles, Iowa, January 10, 1919, age sixty-three years, of pneumonia.

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Frank Cole Roberts, M.D., aged sixty-four, Louisville Medical College, 1876; Member of Lee County and Iowa State Medical Society, died at his home in Fort Madison, May 4, from nephritis.

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George Safely Muirhead, M.D., aged fifty-one; State University of Iowa College of Homeopathic Medicine, 1891; Member of Linn County and Iowa State Medical Society, died at Mercy Hospital, Cedar Rapids, from pulmonary tuberculosis, May 11.

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Amanda Lockman Shelton, daughter of S. D. and Elizabeth Lockman was born in Davis county, Iowa, September 25, 1849, and died at her home in Bloomfield, Iowa, March 23, aged sixty-nine years, five months and twenty-three days.

The larger part of her life was spent in her profession here in Bloomfield where she so greatly endeared herself to those who knew her. For fifteen years she worked as a nurse in the hospital here. Then in 1892 she graduated from the medical college at Keokuk, Iowa, thus fitting herself for that larger field of usefulness that she was so capable of filling. The same day as her graduation she was united in marriage to Dr. E. J. Shelton, who survives her. To him she was always a true helpmate. She worked and toiled constantly to attend the sick and alleviate suffering. For many years she was superintendent and general manager of the hospital and assisted greatly in making that institution the blessing it has been in this community.

Mrs. Shelton was greatly beloved by all who knew her and "Dr. Manda," as she was affectionately called by all about her, will be missed and mourned by a large company of devoted friends and admirers. She leaves to mourn her departure, besides her husband,

Dr. E. J. Shelton, one sister, Mrs. Carrie Cree, and one brother, William Lockman, both of Bloomfield.

Dr. Josiah Swinney was born at Dunnville, Davis county, Iowa, November 28, 1857.

He first received a common school education and began teaching at the age of seventeen years, later attending school at Central University at Pella, Iowa, at the S. I. Normal, where he graduated in teachers' course. Later he attended the medical college at Keokuk, graduating from this institution in 1888, and in 1895, he took a complete course in the New York Post Graduate Medical School. He practiced his profession at Floris, Iowa, until 1898, when he removed to Bloomfield where he continued in his chosen profession practicing constantly for thirty years. He was a very close student and very conscientious in all his work. Dr. Swinney died March 31, at the age of sixty-one years.

Whereas, our association has again suffered the loss of one of its most esteemed members in the death of Doctor Azuba Doty King, who died at her home in Des Moines, March 4, 1918; and

Whereas, Doctor King had been an active associate in our medical circles and a life member of the Polk County Medical Association; and

Whereas, Doctor King was in every measure a true doctor, a servant of humanity, and was possessed of an especial providence in her life which peculiarly fitted her for her work, and directed and sustained her to the end in its execution; and according to the faithful exercise of her gifts, ministered to suffering humanity and correlated her life with her associated, whose common goal, though intangible, directs human activity into channels of future strength and power; and, preeminently qualified for the position she held in life, and endowed with an honest conception of her mission, she was able to combine a beautifully useful life and a stimulating intellectual vision into a constant factor for public good; and

Whereas, there was a truthfulness in her character, a wisdom in her words and actions, a radiant purity in her personality, and an innate love for others in her soul, which virtues naturally imparted a richness to all who knew her; and having retained a large share of bodily vigor and an unclouded possession of her mental faculties, the active life of Doctor King was an earnest expression of noble womanhood and now stands as an exemplification of her modest creed: love and service; and

Whereas; in her departure from this life she is survived by one daughter, Margaret King; now be it

Resolved; That the association mourns with profound grief the passing of this member; that we commemorate her life in these resolutions; and that we sympathize most deeply with this daughter; and that we hold in tenderest recollection the acquaintance of our friend who has passed beyond.

Resolved; That the secretary of this association be directed to spread these resolutions on the minutes, and that he prepare a copy thereof and forward

the same to Margaret King, her daughter, with the sincere regards and well wishes of the association.

(Signed) SOPHIA H. SCOTT,  
GEORGIA STEWART,  
LENNA L. MEANES,  
Committee.

Dr. Herschil of Mechanicsville died recently in a hospital at Iowa City.

The Woodbury County Medical Society, in its last monthly meeting, passed the following resolutions relative to the untimely death of our fellow member, Dr. W. March White;

Whereas, After answering to the call of patriotic duty and accepting the hazardous fate of war, it became the terrible fortune of our fellow member, Dr. W. March White, to suffer the supreme sacrifice of death, in the heroic performance of his duty in France, thereby eliciting the highest praise of his commanding officer as to his bravery and noble character, and;

Whereas, During his membership in the Woodbury County Medical Society he was always recognized as a man of exceptional ability, of irreproachable moral nature, and possessed of all the other admirable attributes of an able physician and surgeon;

Therefore be it Resolved, That we the members of the Woodbury County Medical Society, do hereby express our deepest appreciation of this our departed fellow, with heartfelt regret at his early taking off, and we now order that a copy of these resolutions be spread upon the records of our society, and also that a copy be transmitted to the members of his bereaved family.

Signed,

By the Committee on Resolution,  
for the Members of the  
Woodbury County Medical  
Society.

## PERSONAL MENTION

Dr. J. E. Brinkman of Waterloo has been appointed a member of the board of police and fire commissioners to succeed Dr. D. C. Huntoon, whose term of office expires this month. Dr. Brinkman's appointment on the police and fire commission will be good for a term of six years, expiring on the first Monday in April, 1925. Dr. Huntoon, the retiring member of the board, who is finishing his six-year term, is barred from reappointment, as he is holding another city office—that of health officer.

Dr. Frank B. Paul has resigned from the university hospital, to join the University of Texas staff. He is the hospital pathologist. Dr. W. G. Walker of Riceville, an alumnus of S. U. I.'s college of medicine, will succeed him pro tem.

Major A. S. Price, former Des Moines physician who went to France with the Eighty-eighth, has been made acting commanding officer of a base hospital at Toul, assigned there by the chief surgeon of

the American Expeditionary Forces. The hospital has 700 beds, and before the armistice was signed accommodated as many as 1,200 patients at one time.

Dr. C. H. Mitchell who volunteered his services as a physician when war was declared and was commissioned first lieutenant, was promoted to the rank of captain on March 4, and is now stationed at Hal, Belgium, in a hospital of 250 beds and is in charge of a flu ward of 25 beds, and had 20 patients in his ward.

Lieut. R. E. Parry arrived in Scranton, having been discharged from the army two months ago, since which time he has been taking a post graduate course at Boston along lines of his profession.

Dr. E. T. Fitzgerald, formerly of Boone, who has been overseas for several months, has been made a captain in the United States Army.

Captain C. L. Patterson, of West Side, who has been serving in France since last April, has returned to the states.

Dr. C. H. Burke has gone to Mechanicsville, where he will assume the practice of his profession. He has but recently been discharged from service.

Dr. A. A. Pace of Toledo has been advanced to the rank of major in the U. S. Medical Corps and for some time has been in charge of Provisional Base Hospital No. 1, at Bavoilles, Meuse, France.

Dr. Steele of Belmond returned and has resumed his practice, reopening the hospital which had been closed during the doctors' absence in the service.

Dr. J. R. Christensen of Eagle Grove has been promoted to a captaincy. The Doctor has been serving in France for more than seven months.

Dr. Milford E. Barnes, in the employ of the Rockefeller Foundation work in North Siam, has notified his parents Rev. and Mrs. A. J. Barnes that he has been given a leave of absence and will arrive in Hong Kong soon and expects to arrive at the home of his parents the last of May or the first of June.

Doctor Prentiss B. Cleaves announces his return from the military service and the resumption of his practice in Cherokee. He will limit his practice, as before, to surgery and consultations.

Captain Lloyd Allen, of Chariton, of the medical corps, was gassed while in service in France and since his return from overseas has been in a hospital in Chicago.

Donald C. Snyder, a recent graduate of the Iowa University School of Medicine, has been appointed intern at Harper Memorial Hospital, Detroit.

Dr. W. J. Herrick of Ottumwa had a valuable lense belonging to his microscope stolen recently.

Major E. S. Parker of Ida Grove is at Savenay Hospital Center, France, going there from England.

Dr. Thomas Roy Campbell serving with the British Army in Belgium, has been promoted to a captaincy from a lieutenant. Dr. Campbell was graduated from the College of Medicine, S. U. I., in 1909. He afterwards practiced at Arthur, N. D. until he entered the service.

Dr. A. J. McLaughlin, until recently a first lieutenant in the United States public health service, received his commission as a major. Dr. McLaughlin

gained prominence in the northwest during the war through his activity in health work. His last work was in Oklahoma where he organized the state in a fight against social diseases.

Dr. L. G. Stuhler has now returned to Monticello and resumed the practice of medicine. His office is located on the second floor of the Monticello State Bank building.

Dr. Lenora Carpenter of Des Moines has been assigned to overseas service in Red Cross work. She has signed for six months service.

Captain J. A. McKirahan of Perry who entered the medical service of the United States Army about two years ago has been commissioned major and is now stationed at base hospital at Savenay, France.

Lieutenant Arnold of Burlington with the Twenty-fifth Engineers overseas has been promoted to the rank of captain.

Major J. Fred Clark of Fairfield in command of Hospital Unit R has been promoted to the rank of lieutenant-colonel.

Lieut. Ira Crowe of Marengo has been commissioned as captain.

Dr. Frank A. Will of Des Moines, assistant medical director of the Bankers Life Company has been promoted from the rank of lieutenant and is now a captain in the medical department of the U. S. A. He has been in service as an eye specialist in a military hospital in London.

Dr. A. G. Bush, discharged from the army as a major in the 126th Field Artillery, and an officer in the Iowa Artillery from its organization in 1915, has made arrangements to open up offices in Cedar Rapids.

Lieutenant John A. McIntyre of Davenport has been promoted to the rank of captain and has been sent to the University of Toulouse in southwestern France, for four months study. Dr. McIntyre has been in France seven months with the 313th Sanitary Train of the 88th Division.

Dr. McGuire accompanied sixty nurses of the unit overseas from France to New York reaching there March 13 and from there went to Camp Dix, N. J., where he was mustered out of service. He immediately left for his home in Brighton.

Dr. E. I. Woodbury has returned to Burlington, after serving in the medical department of the army for nine months, most of the time being in France.

Dr. Lee Shafer, formerly of S. U. I., first lieutenant in the U. S. Medical Corps, has returned from France and has gone to Davenport to practice his profession.

Dr. James J. Rock of Iowa City has been commissioned a captain in France. He is serving with a regiment in the British Army.

Dr. C. W. Harned of Des Moines who has been serving in base hospital No. 61 in France with rank of captain, has been given the rank of major, it was announced here today. Major Harned will remain in France for some time.

Lieut. Erwin J. Gottsch who has been serving overseas since last summer was commissioned a cap-

(Continued on adv. page xviii)



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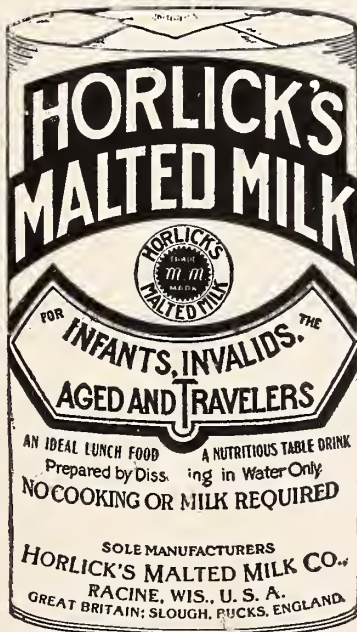
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### PERSONAL MENTION

(Continued from Page 206)

tain in the medical corps in February. Captain Gottsch is stationed at base hospital No. 69, Savenay, France. It is expected that he will sail for the states in April.

Dr. Edward J. Wehman, of Burlington, who has been serving overseas as a lieutenant in Unit R of the American Red Cross has been promoted to a captaincy.

Lieut. A. J. Booker, former Des Moines, colored physician, recently returned from France. Lieut. Booker will resume his practice in Des Moines.

Dr. Hugh P. Barton, well known local physician and surgeon who recently returned to Davenport after almost a year's service in the army, is again in his old quarters in the Lane building.

Dr. Charles M. Hazard has been transferred from the Bordeaux camp to the Army of Occupation over the Rhine. He is with the medical corps.

Dr. Rudolph H. Brand, who has been in the service for several months and a member of the Sunset Division, has been given his discharge and is now at his home in Boone.

Capt. Fred C. Sage, recently returned to Waterloo, after having spent seven months in the U. S. Medical Corps. Going from here last August, Capt. Sage was stationed at Camp Sherman, O., until early in December. After a couple of weeks research work in Washington, D. C., he was transferred to the eye, ear and nose infirmary, New York City. Since the first of the year he has been working in this infirmary and doing research work at Mineola and New Haven, Conn.

Dr. Guilford Herman Sumner, of Des Moines, secretary of the Iowa State Board of Health, an alumnus of the S. U. I. College of Medicine, class of 1896, was one of the principal speakers at the Iowa City Commercial Club.

Captain Oscar H. Peterson of Lamoni, Iowa, has been awarded the military cross for distinguished services.

Captain Charles T. Maxwell, M.C., U. S. Army, Sioux City has been twice cited for bravery, the second time for going through a heavy barrage and rescuing an officer.

Sixty-six American medical officers, among them Dr. O. H. Peterson of Lamoni, now Lieut. Peterson, were decorated by the British Government recently for bravery in action and for distinguished service in the war. Dr. Peterson was one of the American medical officers assigned for service with the British Army shortly after being sent overseas and he has served with the English forces since that time.

Lieut. C. G. Baird, of Oelwein, now overseas at Brest, has recently been promoted to the rank of captain.

Capt. H. I. McPherrin of Perry, after a nineteen months' period of service, received his discharge at Camp Dix and will resume his practice at Perry.

Dr. T. J. Case of Unionville who has been located

at Armour, S. D., for the past year, has returned to Unionville.

### MARRIAGES

Dr. E. C. Troxell and Elpha Fees in London, England, February 12, 1919. Miss Fees was a nurse from New Etna serving in Base Hospital No. 13 in France. Dr. Troxell was serving with an English unit.

### BOOK REVIEWS

#### UNITED STATES ARMY X-RAY MANUAL

Authorized by the Surgeon General of the Army. Prepared under the direction of the Division of Roentgenology; 219 Illustrations. Paul B. Hoeber, New York, 67-69 East 59th Street, 1919. Price, \$4.00.

This manual has been prepared under the direction of the Surgeon General of the Army to serve as a guide to roentgenologists doing x-ray work for the military hospitals and will supersede the small manuals hurriedly prepared in the beginning of the war. It is not intended as a complete treatise on roentgenology but as an emergency manual for war diagnostic work. X-ray work in civil and military service does not differ materially except in relation to conditions surrounding it; the principles must be the same.

The first 148 pages are devoted to x-ray physics and laboratory experiments. War conditions necessarily involved the introduction of new apparatus which is described and illustrated. Standard positions and dangers and protection are introduced. Localization and apparatus for this purpose is described and illustrated with considerable detail. X-ray examination of bones and joints occupy considerable space because of the great importance of this subject, also the teeth and maxilla; the thoracic viscera gastrointestinal tract and the urinary tract.

The book is a very valuable guide to x-ray work in both military and civil practice.

#### ROCKEFELLER FOUNDATION INTERNATIONAL HEALTH BOARD

Fourth Annual Report, January 1, 1917 to December 31, 1917; 61 Broadway, New York, 1918.

This report of 150 pages contains an outline of the work, in twelve states of this country and twenty-two foreign states and countries, in the investigation and treatment of diseases peculiar to tropical and semitropical countries, including tuberculosis in France and Belgium. This work, it will be remembered, was undertaken first by the Rockefeller Foundation, but the advantages of this work became so apparent in improving the condition of the people of these countries that the various governments have been taking over the work in increasing degree and the Foundation has been gradually withdrawing for the prosecuting of other work.





DR. JEANNETTE F. THROCKMORTON, Chariton  
PRESIDENT

State Society of Iowa Medical Women  
1918-1919

# The Journal of the Iowa State Medical Society

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No. 7

## OUR PART IN SOCIAL EDUCATION\*

JEANNETTE F. THROCKMORTON, PH.B., A.M.,  
M.D., Chariton

War has taught us in the United States, as well as the people and statesmen of Europe, how to value good soldiers. Every one of the fighting nations learned this truth about the price of war—it required good soldiers.

Many men who offered themselves as recruits at the beginning of the war, were found to be unfit to fight, and practically one-third of the men who came before the draft boards were rejected.

This is the first national test of the physical fitness in fifty-seven years, and yet these figures are practically the same as those of the Civil War; to our chagrin we can show no marked improvement in general health and strength.

Of those rejected, 19 per cent. were due to preventable causes and preventable diseases; and briefly the four main causes for rejection were: one, poor teeth; two, defective eyes, three, defective feet, and four, venereal diseases.

Some enthusiasts said to start good systems of training, drill, gymnastics and muscular exercises, so as to make soldiers out of those whom the doctors had been obliged to reject.

Such training combined with arch supports might improve some foot troubles; and education on the use of eyes and proper treatment might in a small number of cases improve some eyes; but there is no system of training or dumb-bells or Indian clubs that will restore good teeth to a recruit's jaw from which they had been lost ten years before. However, when we approach the last cause for rejection, venereal diseases, we find a wide field for immeasurable good which would result from proper education and treatment. Our government saw this possibility early in the war, and as soon as our country entered the world's struggle, it began a campaign against the venereal diseases.

Our government knew that during the first

eighteen months of the war, in the ranks of one of our Allies, there were more men in the hospital sick with venereal diseases than were wounded by German and Austrian bullets. Knowing this fact, our government determined to profit by the knowledge so as to put only a healthy efficient army into the field. As a result of the campaign against venereal diseases, General Pershing's army was the cleanest army put into the field and it had the lowest venereal rate.

But the campaign of clean camps free from liquor and prostitution, education of the soldiers on venereal diseases and compulsory treatment for same, did not at once stop these diseases; and the government officials soon observed that five times as many men came into the army with these diseases, to one who contracted them after he was in; and the one who contracted them after he was in service, usually was infected in a civilian community outside of military control. Our government officials soon realized that venereal diseases were not a war epidemic or a war problem, but were a civilian problem; and they were so clear-visioned that they saw that the general public must be educated upon this subject, be educated that the venereal diseases were very serious, very common, and very contagious.

And the great men of our government who carried upon their shoulders the responsibility of national health—and remember that the true wealth of a nation is a healthy people—looked beyond today and wisely said that women must also know these important health facts; that they must be taught about venereal diseases and the terrible consequences which result from them; that every woman has a right to know about diseases which may attack her directly and ruin her health, wreck her happiness, rob her of the power to have children, or give her children that are blind, crippled or half-witted.

Hence the campaign on social education, which was inaugurated under the war work council through the past few months; striving to reach the women of this great nation and give them knowledge of health matters, so vital to them and their children.

\*President's Address—Read before the State Society of Iowa Medical Women, May 6, 1919, at Des Moines, Iowa.

Women need this knowledge not only for themselves and their protection, but that they may pass it on to the coming generation. Women are the builders of the home, and they naturally can touch upon sex matters with boys and girls with much better success than can men.

Many mothers would teach their children, if they only knew what to say and how to say it; it is pitiful to see the many anxious mothers grasping eagerly at every bit of information which they think may help them tell their children about the beginnings of life and the sacredness of parenthood. Mothers are more concerned about this, I believe, than about venereal diseases; yet the two go in one large circle.

Venereal diseases are the result of immorality; immorality results from vulgar sex thinking; vulgar sex thinking begins in early childhood; therefore sex education should begin in early childhood as the surest means of making a pure mind.

Mothers should be encouraged and urged to answer truthfully their children's questions about the beginnings of life; though remember, biological teaching alone will not stamp out immorality—a child must be taught the beauty and sacredness of parenthood and his responsibility to the race.

We have been working for better babies. How can we have better babies if we have venereal diseases, for these are transmitted to the unborn babe. We must get at the root of the matter; prevention of these diseases in the parents.

Our duty is to instruct the mothers and daughters. We must insist that women and girls have knowledge of health matters so vital to them; in order that they may not only rightly teach their children and safeguard them during the trying years of adolescence; but may also protect themselves from infection; and by holding high the single standard of morality elevate the ideals of the race.

Understanding of all the forces that make up splendid men and noble women is essential for this age. In the light of the complicated duties of this world—reconstruction, we have come to realize that health is indispensable, yet that health alone cannot raise our race to its highest existence. To this must be added intelligence and morality. Intelligence controls the forces of life, and morality guides them in the direction of progress and the upbuilding of the race.

"All that is, at all  
Lasts ever, past recall;  
Earth changes, but thy soul and God stand sure;  
What entered into thee  
That was, is, and shall be!"

## INFANT FEEDING\*

L. S. DIETRICH, PH.B., M.D., Marengo

In prescribing food for an infant, three main points should be considered:

*First*—It should contain the proper elements.

*Second*—It should be digestible.

*Third*—The quantity should be sufficient to maintain nutrition and allow growth.

The elements of food required by an infant are, as in adult life; proteids, fats, carbohydrates, mineral salts and water. The form in which they should be fed, and the relative quantities demanded, however, differ from those required in adult life.

The ideal bottle food would seem to be one that most nearly imitates breast milk, which contains from 3 to 4 per cent. of fat, 6 or 7 per cent. of sugar, and from 1 to 2 per cent. of proteids. Such a food, however, when made of cows milk, is not well borne by many infants, and is therefore not practicable in the difficult cases, such as we are usually called upon to treat. The fat sugar and proteid of cows milk are different from those of human milk. They are intended for the digestive apparatus of the calf and not of the infant, and if we must use cows milk for infant feeding, we should give it in as digestible a form as possible.

It is impossible to modify cows milk so as to duplicate mothers milk. They have practically the same chemical composition with varying percentages, but are quite different physically. Cows milk curdles into a tough leathery mass, because 70 per cent. of the digestion of the calf takes place in the stomach and nature has provided a diet that will conform to this condition. Human milk, however, curdles into a soft flocculent curd because only 30 per cent. of the infant's digestion takes place in the stomach. Nature then produces the milk of the various mammals in the correspondingly varied forms which will best develop the respective digestive organs according to future needs.

Fats, proteids and carbohydrates are interchangeable to a limited extent. Since breast milk contains 4 per cent. fat, theoretically the infant should have 4 per cent. of fat in its food, but in an artificial diet this amount of fat is very hard to digest, and the infant can better make use of an extra amount of protein and sugar to take the place of some of the fat normally in the breast milk. The human economy is very adaptable. The Eskimo lives almost entirely on a protein and fat diet. Certain other races seem to thrive on a

\*Presented at the Iowa County Medical Society, Marengo, Sept. 2, 1918.

high starch diet; and an infant dietary will likewise permit of a certain amount of substitution. Because the fat is so often hard to digest, it is best to use proper dilutions of whole milk, or even skimmed milk in cases of extreme indigestion. Any deficiency in fat may be made up by adding sugar. On account of both the fat and the protein it is usually best to give no stronger dilutions than half and half milk and water to infants under four months of age or in cases of digestive disturbance.

The proteids are the only kinds of food that are capable of replacing the continuous nitrogenous waste of the cells of the body. Fats possess the important property of saving nitrogenous waste, so that when they are properly supplied in the food, the entire energy of the proteids may be expended upon the growth and nutrition of the cells without being used up for the production of animal heat. They also add to the body weight by storing up fat, and are needed for the growth of nerve cells and bone.

The sugars, like the fats, cannot replace the nitrogenous waste, but they are important aids to the proteids. Their chief use in the human economy is to supply heat and energy, and they are capable of replacing fat waste in the body.

The mineral salts are of even greater importance in infancy than in later life because of the rapid growth of the bony structures which is going on at this period. They are also necessary for cell growth, and are important constituents of the blood and of the digestive juices.

It is of the utmost importance to have a food which the infant can digest. It would be useless to supply the proper amount and in the correct proportions of the various elements if it caused indigestion. Simple mixtures of milk, water and sugar are more easily digested than many of the more complicated mixtures formerly used.

The proteids are not now accused, as they formerly were, of being the source of all indigestion. The proteid of cows milk is composed of about three-fourths casein or curds and one-fourth albuminous proteid or whey. The curds were formerly supposed to be the element most difficult of digestion, hence they were often discarded in difficult cases, and whey and cream mixtures were used instead. As a matter of fact the whey, containing as it does most of the sugar of the milk, is probably more difficult to digest than are the curds if properly treated, especially when cream and artificial sugar are added.

Some authorities added alkalies to overcome this imagined excessive indigestibility of the curds, usually lime water, about one ounce in twenty. The main reason for adding alkalies

would seem to be to neutralize the acid gastric juices of the stomach so that the milk might pass into the intestines as a fluid without curdling in the stomach. To accomplish this, it would be necessary to use alkalies much stronger than lime water, and sodium citrate, sodium—and potassium carbonate have each been used in their turn. When used they probably prevented coagulation in the stomach, but in doing so they threw most of the work belonging to the stomach upon the intestines and necessarily often caused intestinal indigestion. Other reasons advanced for the use of lime water are that it supplies the calcium deficiency in cows milk, and that it increases the flow of hydrochloric acid in the stomach, but the best authors today agree that the use of lime water in the strength ordinarily used is of no benefit whatever, and that the digestibility of the food is not affected in the least by either its addition or omission, and as it has a tendency to decrease rather than increase the palatability, it is preferably omitted.

Gruels have been added, or rather used as diluents, in order to make the proteids more digestible but occasionally the gruels themselves cause indigestion.

Peptonizing the milk was at one time quite popular, but is also no longer considered as properly meeting the requirements.

Boiling the milk has been found to help the most where the proteids do not seem to digest well. It has been shown that tough hard curds stay in the stomach for many hours when raw milk is used, and that the curds are flocculent and easily digested when the milk is boiled.

We should not think of protein, fat, or sugar indigestion as separate entities, for while an excess of any one of these elements will cause digestive disturbances, the power to digest the other elements is at the same time diminished. A baby who has been fed on a high fat mixture until it has indigestion may have casein curds in the stool because the digestive apparatus is not in proper condition to take care of the proteid. The same would be true of sugar indigestion. Usually it is not sufficient to simply cut down the fats in indigestion caused by fats nor is it effective to simply cut down the sugar when that is the cause of the disturbance. The indication itself must be treated as such, first by cutting down both fats and sugar, and by boiling the milk to increase the digestibility of the protein until digestion is normal.

It is now generally conceded that high fat mixtures are not to be used in infants having digestive disturbances and the majority of pediatricians at the present time believe that even for well in-

infants the 4 per cent. fat as it occurs in the average cows milk is sufficient to maintain the proper nutrition when properly diluted for the individual infant. In this country where percentage feeding has been so popular and carried to such extremes the fat has probably been the cause of more indigestion than any other one element of food. At the present time those who are still percentage enthusiasts, with a few exceptions, do not use milk that contains more than 8 per cent. fat, which diluted with an equal quantity of water reduces it to 4 per cent., and simple mixtures of whole milk are becoming more and more popular. For this reason indigestion caused by high fats is not seen as often as when 12 and even 20 per cent. milk was used to make dilutions. There is very little danger of the fats causing indigestion in well infants when proper dilutions of whole milk containing 4 per cent. fat are used.

Sugar is in many ways the most important element in the food. At least it gives the most trouble when wrongly used and by its proper manipulation digestive disturbance can often be overcome without changing the food in any other way. Sugar serves two purposes. It furnishes a large amount of nourishment because of its high caloric value, and it helps to make up any deficiency in the fat which may possibly exist. Besides it is often a laxative, which fact it is well to bear constantly in mind, for infants who have a tendency to diarrhoea can take less sugar in the food than can those who have a tendency to constipation.

A fixed quantity of sugar, either one or one and a half ounces by weight, should be used in feeding all well babies, provided they are able to digest this amount, because it has been found from a practical standpoint that such an amount supplies the carbohydrate needs, supplementing the sugar that the cows milk itself contains. Even though the quantity of artificial sugar remains constant the total amount of sugar in the food increases with the increase in quantity of the milk. Whether an ounce or an ounce and a half is used depends on the infants weight. A well infant under ten pounds in weight should receive one ounce, and an infant over ten pounds in weight may have one and a half ounces of sugar in twenty-four hours. It is well however not to begin with this amount. The rapidity with which the sugar is increased to one or one and a half ounces depends on whether or not the infant has previously had sugar, whether or not there has been any diarrhoea and vomiting, and the severity and duration of the attacks. If one ounce of sugar be given from the beginning to an infant who has been on a diet with little or no sugar in

it, diarrhoea and vomiting may result. The sugar should be added one teaspoonful at a time and at intervals of two or three days until the required amount is reached, otherwise a sugar intolerance may be brought on which may be more or less permanent.

It is a well known principle of physiology that every individual needs a certain definite quantity of food to maintain nutrition, to supply heat and to furnish energy used in muscular and organic activity. The amount of food needed varies with the size of the individual, the condition of his nutrition, the amount of energy he expends, and the heat he loses. The infant normally doubles his weight in the first six months of life and therefore needs an extra supply of food for this purpose.

The definite quantity of food every individual needs is best expressed by calories. A calorie is the amount of heat necessary to raise the temperature of one kilogram of water one degree centigrade.

An ounce of milk when utilized by the human economy has a certain definite value and will produce a certain amount of heat energy and growth. An ounce of sugar or flour or any other food also has a certain definite caloric value. These have been determined and the caloric values of all foods are definitely fixed and known.

It is a more or less complicated matter to reckon the number of calories taken by an adult in twenty-four hours because the food is so varied and the amounts often difficult to measure, but it is a very simple process to reckon calories for an infant when its food is limited to milk, sugar, and possibly one of the cereal flours. We need remember only three figures with reference to the caloric values of foods, and the third of these is seldom used; namely:

One ounce of whole milk containing 4 per cent. fat contains 20 calories.

One ounce of sugar, any kind, by weight, contains 120 calories.

One ounce of any of the cereal flours contains 100 calories. The only other figures we need remember are the number of calories per pound weight the individual infant needs, since the caloric requirements are not the same for all infants.

Fat infants over four months old need from 40 to 50 calories per pound weight. Average infants under four months of age, and moderately thin infants of any age need from 50 to 55 calories per pound weight. Emaciated infants, varying with the degree of emaciation, need from 60 to 65 calories per pound weight in twenty-four hours.

A fat infant has less body surface in proportion to its weight than an emaciated one and hence loses less heat from the surface of the body proportionately. A fat man feels warmer in hot weather than a thin one because he has not as much body surface in proportion to his weight from which to radiate heat. It is very evident that a man weighing 200 pounds does not have twice as much body surface as one weighing 100 pounds, and since a large amount of the food we take is lost in heat, the fat man does not need as much in proportion to his weight as the thin one. For the same reason the fat infant does not need as many calories per pound weight in twenty-four hours as does the emaciated one.

The number of calories infants need has been determined by metabolic and calorimetric experiments, also by taking large series of infants of various ages, weighs and conditions of nutrition and ascertaining by clinical observations the number of calories they require to develop properly and gain in weight.

When we see an infant for the first time it is a matter of judgment whether it is a 40 or a 60 calories infant.

As an example take an infant four months old weighing twelve pounds, which would be about an average sized infant, if it is moderately well nourished it needs about 50 calories per pound weight in twenty-four hours. This would make 600 calories required to maintain nutrition and gain in weight. Since well infants weighing over ten pounds need one and a half ounces of sugar, and we are giving plain mixtures of milk, sugar and water, we find that by subtracting the 180 calories furnished by the sugar from the total 600, there will remain 420 to be supplied by the milk, and since one ounce of milk equals 20 calories it would need a total of twenty-one ounces of milk. Assuming for the moment that this particular infant could take forty-two ounces of food in twenty-four hours we must add enough water to make up the total of forty-two ounces, which would then give us the following formula:

Twenty-one ounces of milk amounting to 420 calories, 21 ounces of water, and  $1\frac{1}{2}$  ounces of sugar of 180 calories, making a total of 600 calories.

As a second example, take an emaciated infant five months old weighing seven pounds. This child would probably need 65 calories per pound, or a total of 455. Since it weighs less than ten pounds it must have only one ounce of sugar amounting to 120 calories, which leaves 335 calories to be supplied by the milk, which at 20 calories per ounce gives sixteen and one-half ounces. If this infant can take thirty-five ounces of food in

twenty-four hours, and we disregard the fraction of an ounce, our formula will be:

Milk 17 ounces, 340 calories; water 18 ounces, sugar 1 ounce, 120 calories, making a total of 460 calories in twenty-four hours.

It is best to disregard the fraction of an ounce because so small a deviation will make no difference, and the same is true of the small extra bulk from the dissolved sugar.

If an infant has diarrhoea or vomiting or loss of appetite, the food that supplies its actual needs will only serve to increase these symptoms and should therefore not be given until such symptoms have been successfully treated, after which the ingredients must be started low and increased only gradually, not expecting any gain in weight until the caloric needs shall have been supplied. An infant under four months of age, or one that has recently recovered from digestive disturbances should not be fed with a stronger solution than half milk and half water.

The quantity of food depends on the number of ounces an infant may take at each feeding and the number of feedings in twenty-four hours. If an infant can take six ounces at a feeding and is fed every three hours from 6 a. m. to 9 p. m. with one feeding at night, making seven in all, the twenty-four hour quantity will be forty-two ounces. We must therefore have a rule for the quantity that may be given at a single feeding and one for the number of feedings in twenty-four hours that will apply to all infants.

An infant of average size should have at each feeding one or two ounces more than the number of months it is old. An undersized infant should have at each feeding one ounce for each month of its age, or even less if necessary. It is never necessary to give more than eight ounces at a feeding, or forty-eight ounces in twenty-four hours. During the first weeks of life the quantity at each feeding should be increased as rapidly as possible up to three or four ounces, the guide being the quantity the infant will take.

There is a great difference of opinion concerning the length of time that should elapse between feedings. Some recommend two hours for all infants under four months of age gradually increasing the intervals after this age, up to three hours. Others use four hour intervals for all infants of any age, sick or well, and are particularly insistent on the four hour interval for sick and weakly infants. The writer believes that the happy medium of three hour intervals from 6 a. m. to 9 p. m. with one night feeding is the wisest course up to the age of four or five months, after which the night feeding may be

omitted, giving six in twenty-four hours. This may be continued up to the age of one year. Even new born infants do well on these three hour intervals, better we believe than on a shorter one.

It will be seen then that an infant requires a definite number of ounces of milk every day for each pound of its body weight, to which is added one or one and a half ounces of sugar. This milk and sugar must be diluted with water. A rough rule for estimating the quantities without reckoning the calories is as follows: The average infant having no digestive disturbance requires in twenty-four hours twice as many ounces of milk as it weighs in pounds, provided it can take one or one and a half ounces of sugar. Fat, well nourished infants over four months old need less than this, while emaciated infants often need much more. For illustration take an infant weighing ten pounds. This infant according to the rule would require twenty ounces of milk, and perhaps twenty ounces of water, which with one ounce of sugar would give 520 calories or 52 per pound, about the average caloric requirement.

There are of course conditions under which the caloric requirements cannot or should not be fulfilled. For instance, in the new born for the first few weeks; in normal infants abruptly weaned from the breast, until their tolerance for artificial food can be gradually increased; infants who have been overfed, until their digestive apparatus can recuperate; or who have been underfed, until their tolerance can be gradually increased; or in sick infants, until they are well.

Summarizing then:

1. There are three main points—It should contain the proper elements, it should be digestible, and it should contain the proper quantity.

2. Simple mixtures of whole milk, water and sugar are the best.

3. Percentages need not be the same as in mothers milk since fats, proteids and carbohydrates are interchangeable to a certain extent.

4. Mineral salts in the form of lime water when added to the food do neither harm nor good and are preferably omitted.

5. Boiling cows milk makes the proteids more digestible, has no disadvantages and should be resorted to in cases of impaired digestion.

6. Sugar is in many ways the most important element, gives the most trouble when wrongly used, and when properly adjusted will correct most cases of digestive disturbances.

7. A fixed definite quantity of food according to body weight, preferably measured by caloric standards, should be given.

8. The range of calories required is from 40

to 65, with 50 for an average child, for each pound of body weight, in twenty-four hours.

9. Infants weighing less than ten pounds should have one ounce, and infants weighing ten pounds or more should have one and a half ounces of sugar in twenty-four hours, the remaining number of calories to be supplied by milk with water enough added to make up the proper quantity.

10. Skimmed milk or whey contains 10 calories per ounce. Whole milk with 4 per cent. fat contains 20 calories per ounce. Milk with 8 per cent. fat contains 30 calories per ounce. Milk with 12 per cent. fat contains 40 calories per ounce. Sugar contains 120 calories per ounce by weight.

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## THE THYROID GLAND, ITS FUNCTIONS AND DISEASES\*

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The early physiologist looked upon the thyroid gland as having no essential function, probably from its having no duct by which its secretion could be conveyed to the general system, and from its variable size, position and shape, it was stated to be for the purpose of rounding out the neck, as having some connection with sleep, as influencing the voice, that it acted as a reservoir for the blood regulating the brain supply. The connection of the glands with the organs of generation had very early attracted the attention of the laity. In southern Italy it has long been the custom of the parent to measure the circumference of the daughter's neck before and after marriage, an increase in size being considered as an evidence of conception.

It was not till 1859 that systematic investigations as to the function of the gland were commenced. Schiff performed thyroidectomy on dogs and found that they invariably died, and that therefore the gland was necessary to life. A. and J. Riverdin described the symptoms produced by thyroidectomy, Ord followed in 1878, and then Kocher on the same lines, stimulating Schiff to further experiments. Schiff reported in 1884 that the extirpation of the gland was not followed by death to the animal, but that it also produced spasms and convulsions, which were prevented by the implantation of the gland under the skin or in the peritoneal cavity.

These experiments were the commencements of an enormous amount of work by a large number of scientists in every country, resulting in a

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number of different theories as to the physiology of the organ, many of which have been proven to be erroneous and are now of little interest except to the historian.

The function of the thyroid gland is said to commence "in utero," or soon after birth (Wolfler). Horsley considers that it commences before birth, but it is greatest during the period of growth, lessening as the vital processes decline. He bases his opinion on the decrease of the secretory power of the gland in phthisis, in which the colloid substance gradually disappears and the epithelial cells pass into the embryonic state, from the fact that the removal of the gland is more fatal in young than in older animals, and that it decreases both in size and activity in old age.

Nielsen is of the opinion that the gland is concerned in the change of mucoid into connective tissue during the fetal months.

Richardson has analyzed the thyroid glands of several children who died immediately after birth, and also a few prematurely born, and has never been able to find a trace of iodine or of the blood-pressure reducing substance. In children of two and three weeks old who had died of cachexia, no iodine was found. The earliest age at which he found iodine was three months. There is a remarkable difference between the calf and the human fetus. In the former the thyroid gland contains iodine in utero. As it has been shown that thyroglobulin is excreted by the mammary gland, with the milk in the human, the child receiving in this manner the necessary amount for its metabolism, it seems possible that one of the reasons why the human infant is so difficult to raise on artificial food is the absence of the necessary amount of thyroid secretion in the artificial foods. As the calf is born with a functioning thyroid, cow's milk probably does not contain the amount of thyroid secretion necessary for the development of the infant.

The function of the gland has been studied chiefly by the indirect method of observing the symptoms after the removal of the gland from animals, and some cases in man, where the operation was performed for disease. In the early experiments the importance of the parathyroids was not recognized, and consequently the symptoms were the result of the removal of both thyroid and parathyroid, which has caused much confusion, being further complicated by the different results obtained with different animals—in some instances as in the rabbit—due to the parathyroids being some distance from the thyroid and not being removed in the operation with the thyroid. Ewald came to the conclusion that birds survived the operation; that rodents and herbi-

vora generally survived with no marked effects, and that in aged dogs the symptoms were usually light. Reptiles, young carnivora; monkeys and man invariably die after the operation if it is completely carried out. Horsley, in 1891, divided animals into four classes: (1) birds and rodents, in whom no cachexia was produced; (2) ruminants and ungulates, in whom the symptoms developed slowly; (3) man and monkeys, in whom the cachexia was certain but the symptoms moderate; (4) carnivorous animals, in whom the cachexia was most severe and rapid. These results seemed to show that the food habits of the animals had some bearing on the importance of the glands to the system, viz.: that carnivora were the most affected, graminivorous and corn eating animals the least affected, while the omnivora occupied a middle position. The later experiments of Hofmeister, deQuervain, Gley and Edmunds have shown that there is little or no difference, provided that the whole of the thyroid, accessory thyroids and parathyroids are removed.

The symptoms produced by the extirpation of the gland are of particular interest from their resemblance to various observed pathological conditions in man, and have been the means of recognizing many obscure diseases as being the result of cessation or perversion of function of the glands.

In dogs after the removal of the glands, the first most noticeable symptom is a derangement of the functions of the medulla oblongata, consisting in vomiting and dysphagia. The efforts of vomiting are accompanied by salivation, often preceding an attack of convulsions lasting until the animal dies. The vomited matter consists of bile and mucus; anorexia is often present, and when the refusal to take food is absolute it is a sure sign of a rapidly fatal result. Sometimes the animal preserves the appetite but finds great difficulty in taking nourishment, owing to the continuous spasmodic contraction of the masseter and the fibrillar contraction of the muscles of the tongue. Moreover the dysphagia usually present renders it as difficult to swallow fluids as solid, and if by chance any food does enter the stomach it is immediately rejected, with an increase of convulsive movements the animal finally ceasing to make any attempt to take food. Vomiting occurs when the food is carefully introduced with the tube. In a few instances the animal continues to eat, but the food accumulates in the stomach, the abdomen becomes distended and the large intestines fail to discharge their contents. Trophic disturbances may appear in the form of excoriations, especially affecting the re-

gion of the articulations in the fore and hind limbs, which may suppurate, never showing any inclination to heal. Muscular paresis and partial paralysis occur usually among the earlier symptoms, the extensors in particular being affected, causing the staggering gait which is usually very marked. Spasms are of frequent occurrence, which in the first instance affect the masseter and temporal muscles, but soon spread to the muscles of the body, and seem to be the result of discharges which take place at regular intervals. This condition lasts for two or three days, when a violent general convulsion may occur, with a tendency to tetanus. At this period the respiration is greatly increased, in some cases being as high as 220 per minute, death often supervening in one of these convulsions. Coincident with the increase of respiration comes increase of temperature, 42.0 degrees C. and even 43.6 degrees C. having been observed. In the intervals between the attacks the temperature has been observed to fall 4 degrees below normal.

The influence of the thyroid secretion on the morphology of the organs of generation in both sexes has been demonstrated by many observers. It is an ancient tradition that the thyroid enlarge at the first menstruation, in certain women, each period producing an appreciable enlargement of the gland. There seem also to be a balancing as it were between the flow of blood and the gland. A suppression of menstruation often produces a swelling of the gland, which disappears on the reestablishment of the flow. There is also a very remarkable connection pointed out by Gautier that the menstrual blood contains iodine and arsenic, both of which substances are part of the normal secretion of the thyroid. In girls it has often been stated that the first sexual act produces an enlargement of the gland. There seem to be no connection between the thyroid and the sexual act in the male, it having never been observed to swell after the first coitus but enlarges about the time of puberty and occasionally a palpable goiter may form. The enlargement of the gland during the rut has been observed in the dog, cat, rat, sheep and deer and was described by Wagner in 1858.

The effect of the thyroid development on puberty is of great importance, Broca ("Goitre and Cretinism," 1891), states that in the complete cretin puberty is never established. The reproductive functions are nil and sterility is absolute, while arrested development of the sexual organs are almost a constant symptom of infantilism. Occasionally there are cases of hyperthyroidism occurring at puberty, which Brissaud explains as result of a difficult sexual metamorphosis, or, in

other words, that an arrested development of the sexual organs may produce thyroid derangements. In cretinism, and especially in infantilism, the increase in the development of the sexual organs under thyroid treatment is very marked. It is of importance, from a therapeutic standpoint to note that the increase in size of the thyroid gland is anterior to the development of the sexual organs, the secretion of the gland being increased, the surplus is utilized to stimulate growth, and, therefore if the gland does not increase, puberty does not occur and the growth is retarded, producing infantilism.

During pregnancy there is a marked modification of the gland. Freund observed augmentation of volume in forty-five out of fifty women. Lange established that the enlargement commenced about the fourth month in primipara and the fifth month in multipara. The gland commences to diminish seven or eight days after confinement and quickly recedes to normal; sometimes the hypertrophy continues through lactation. Lange found that out of 133 cases, 25 did not show any hypertrophy; examination showed that twenty of these presented albuminuria, and he argued that the relative insufficiency of the thyroid as an influence on the kidneys. Experimentation has confirmed his theory. Lange removed four-fifths of the thyroid in a number of cats, producing no symptoms except in those with young, the latter dying and the autopsy showing fatty degeneration of the kidney. Several of the operated cats were impregnated, developing albuminuria and kidney degeneration. This experiment shows a possibility of eclampsia being connected with hypothyroid.

#### ABSCESS OF THYROID

Acute inflammations of the thyroid were observed in the middle of the seventh century, terminating as suppurative goiters. Libert in 1862 and Bauchet in 1877 wrote monographs on the subject which are classical in France.

Acute thyroiditis is always due to infection, a predisposing cause being a goiterous condition of the gland which then becomes cystic. The disease occurs most frequently in women, usually between the ages of twenty and forty, occasionally in children, and very rarely over fifty years of age.

Among the causes of susceptibility besides goiter are trauma and cold. The trauma may be due to pressure, such as strangulation. When the inflammation is preceded or accompanied by a cold it is due to an infection, usually streptococci from a pharyngitis. The gland is liable to infection from its circulation, a venous conges-

tion being easily produced by shouting or long talking, during labor, and in various other ways; it also may occur at the climacteric. Nearly always, if not always, thyroiditis is a secondary lesion during the course of an infectious disease, among the most common being thyroid fever. The pus in the gland has been found to contain the bacillus of Eberth by Tavel, Kocher and many others, either in pure cultures or associated with other organisms. Some cases can be attributed to a secondary pyemia, it having been observed in purulent infections, post-traumatic, post-operative or other suppurative lesions. It is, however, in puerperal infection that the disease is most common, the organism being usually a streptococcus.

The disease which may produce acute thyroiditis are the eruptive fevers, scarlet fever, measles, smallpox, erysipelas, diphtheria, influenza, pneumonia, articular rheumatism and particularly malaria. It has also been observed to accompany or follow bronchitis, pharyngitis and coryza. In diseases of the digestive tract it has been observed in catarrh of the stomach when the bacillus streptococcus lanceolatus was isolated, in acute enteritis, and in proctitis when the bacillus coli communis was found. The staphylococcus pyogenes was found in a gland during a case of osteomyelitis.

The symptoms vary with the accompanying disease. Should there be a primary infection of the gland there should be the chills, fever, malaise and headache common to all infections, followed by the more distinctive symptoms of pain felt in the region of the gland, which is increased on pressure. Localized in the majority of cases in one lobe, usually the right; the pain increases on movement, especially in extension, causing the patient to carry his head thrust forward and bent downward so as to relax the muscles as much as possible; sometimes supporting the chin with the hand; often the pain radiates to the ears and neck. At the end of the first or second day the enlarged lobe usually becomes palpable, very rarely the tumor is confined to the isthmus.

On palpation the tumor is found to be the deep tissues moving up and down on deglutition, it feels at first hard and perhaps elastic; there may be displacement of the trachea, which becomes compressed should the tumor reach a large size, causing dyspnea, which may require prompt surgical interference.

The compression of the vessels causes distention of the superficial veins, headache, ringing in the ears, vertigo, and sometimes epistaxis. Pressure on the pneumogastric nerve may also add to the dyspnea. The patient is annoyed by a

dry cough, accompanied by a slight expectoration streaked with blood, or there may be true hemoptysis. The voice is rough, harsh and thick, speech slow and difficult, sometimes the aphonia is absolute. The respiration becomes painful and wheezy. There may be pressure on the esophagus, or pressure on the nerves, producing painful and difficult deglutition, with a feeling as if there were a foreign body at the back of the throat; vomiting may be very severe.

The irritation of the various nerves compressed by the goiter may cause a number of varied symptoms, such as pains in various regions of the body, formications and paralysis of the hands. This latter symptom is said to be occasionally produced by a functional trouble of the gland.

Thyroiditis may terminate by resolution, by suppuration or by gangrene. In the first case the symptoms increase for three or four days, then remain stationary for some days, characterized by fever with matutinal remissions with a more or less serious condition for five or six days. At the end of this time the gland, which has been steadily growing, commences to diminish in volume, the tumor disappearing in about twenty days. Sometimes there is a return of the swelling after a few days. In many cases the gland never returns to its former volume, remaining permanently enlarged.

Suppuration occurs in about 60 or 70 per cent. of the cases, as in all cases of infection there are chills, fever, malaise, headache, etc., but there is also a change in the character of the pain, which becomes lancinating; the skin over the gland, which has up to this time remained normal or slightly streaked with the engorged veins, becomes hot and red, losing its mobility over deeper tissues. The cervical region becomes enlarged, accompanied by an edema in the substernal region as well as in the upper portion of the thorax.

Fluctuation is always late in appearing and is difficult to detect, owing to the depth of the tumor and is not of such symptomatic value as the discoloration and edema of the neck. Exploration by puncture will usually have to be resorted to if it is necessary to operate early in the disease. As the pus is very thick and the tumor perhaps a long distance from the surface, even a negative result cannot be relied on.

If the abscess is left alone it usually opens externally; the skin becomes red and taut before perforation, the pus is either a serous liquid, fetid, bloody or contains gas. Usually cicatrization is rapid, at others a fistula may remain a month or even years. The abscess may perforate into the larynx, trachea and esophagus, or into the surrounding tissue; in the latter case the condition

becomes very grave, sinus forming in the direction of the face and neck, the clavicles or the pleura.

Gangrenous thyroiditis is rare, there being only eight cases on record and is of very grave prognosis. The condition develops rapidly, the gas forming under the skin causes distention which rapidly breaks down, leaving a large opening in which the carotid arteries and the arch of the aorta may be visible.

A rheumatismal thyroiditis occurs during an acute attack of rheumatism, never suppurates and is characterized by a mobile and fugitive congestion, often developing with great rapidity within a few hours and disappearing in the same manner.

The pain in the region of the gland is very intense, causing the patient to thrust his head forward to support his chin with his hand. It rarely lasts more than three or four days, though it may return or alternate with other manifestations; the neck may remain permanently enlarged.

The thyroiditis of mumps is somewhat similar in its character to that of rheumatism, but it is extremely rare and has not been observed to suppurate.

The thyroiditis of grippe may attain the size of a hen's egg, it recedes about the sixth day and does not suppurate. The symptoms which it produces are those of hyperthyroidism, viz.: vertigo, palpitations, tachycardia, tremors, etc.

The thyroiditis of malaria rarely suppurates, except in goiterous cases. The thyroiditis of typhoid is the most frequent form of secondary acute thyroiditis, usually appearing at the commencement of convalescence, and is probably a local infection from the bacillus of the disease.

When it occurs during convalescence there is a rise in temperature with a hyperleucocytosis instead of the hypoleucocytosis of the typhoid fever. Suppuration is frequent, occurring in about 50 per cent. Generally the course is favorable with rapid cure.

Pyemic thyroiditis is a much more grave disease than the other forms as the point of infection are scattered through the glands, rendering the probabilities of a favorable termination very remote.

The pathological anatomy of this condition requires only a short description, in non-suppurative conditions the tissues is much congested, of a dark red color, dotted with small hemorrhages. Under the microscope pigment degeneration of the cells is found, congestion of the capillaries and the colloid infiltrated into the interstitial tissue.

The suppuration is generally in the bands of

connective tissues, looking under the microscope like small miliary abscesses.

The diagnosis of acute thyroiditis presents but little difficulty. The treatment depends upon the cause, it being directed to the general infection. A purgative to deplete the system has often a good effect in reducing the tumor, external application of belladonna ointment or hot compress may be of service. If there is suppuration the abscess should be opened as soon as it can be definitely defined, usually it will heal rapidly.

#### TUBERCULOSIS OF THYROID

The thyroid gland is subject to two kinds of lesions in tuberculosis; it may be invaded by the tubercle bacilli with the development of the typical granulations, or the toxins formed in the general system may produce sclerosis and consequent loss of function. Tubercle formation in the gland is rare, on the contrary the sclerosis of the gland is always present.

Previous to Lebert's work in 1862 the pathological research on the thyroid had been principally confined to goiter. The latter investigated and found miliary tubercle in the gland of a woman twenty-five years of age. Virchow reported a case of caseous tubercle, which was followed shortly after by reports of cases by Frankel, Bruns, Rolleston and others. Chiari found tubercles in the thyroid in 4 per cent. of his cases. Weigert found tubercles in the thyroid of all of the eleven cases of miliary tuberculosis that he examined; others have not found them so frequently. They are more common in young persons and children than in older patients.

#### SYPHILIS OF GLAND

The thyroid gland is sometimes the seat of a syphilitic inflammation in secondaries or tertiaries, the gland becoming so large as to cause dyspnea, but this is exceptional. Wolfler records a case where the thyroid was found to contain a gumma the size of a fist. Fraenkle reports a case which died of syphilis of the trachea, lungs and liver. At the autopsy it was found that between the isthmus and the right lobe there was a mass of yellow substance which, on microscopical examination, proved to have developed in the interfollicular tissue and had compressed and invaded the parenchyma of the gland. The lesion differentiated from tubercle by the absence of giant cells and degeneration.

Hereditary syphilis is occasionally found in the thyroid gland. Demme found small gummas in five cases. First record a case of a child born of a syphilitic mother who presented none of the typical symptoms but had a large goiter which he considered to be of syphilitic origin.

Garnier studied the glands of newly born syphilitic children. In only one case was the gland healthy. The lesions were remarkable as being diametrically opposite to those found in the adult; the colloid substance instead of being increased was reduced or absent. The vesicles were uniformly full of cells, the capillaries dilated, small hemorrhagic points scattered through the gland and at the same time foci of cellular degeneration. These lesions are not confined to hereditary syphilis but occur more or less marked in all cases of infection of the fetus. These lesions are of importance as they may account for many of the troubles occurring in the development of the child.

Abraham reports three cases of women who developed exophthalmic goiter the first five months after the primary lesion, the second during the height of secondary infection, and the third two years after infection, all of whom were cured by antisyphilitic treatment.

Faisans and Audistere reported a case with both gonorrheal and syphilitic infection, who developed a pseudomyxedema in which the myxedematous symptoms were not affected by mercurial treatment but disappeared under thyroid feeding.

Kohler has reported cases of myxedema following syphilis and Demme has observed symptoms of Basedow's disease to occur.

#### CANCER

Cancer of the thyroid gland is rare, occurring only nineteen times in 10,000 cases and very rarely except in glands which are goiterous. It usually appears between the fortieth and fiftieth year. Schuh observed it in a young man of sixteen and Demme in a child. Traumatism is probably a factor and Kaufman suggests pregnancy as favoring its developments, owing to the congestion of the gland during that period.

Usually the tumor is unilateral, but may effect both lobes; the enlargement may be as large as a hen's egg or even greater, being sometimes hard, at others soft.

Cancer of the thyroid has a tendency to invade the neighboring tissues; the trachea, the larynx and the esophagus are compressed by the neoplasm, causing ulceration and perforation.

Thyroid cancer is a tubular epithelioma characterized by the development of narrow spaces filled with polygonal cells, there being many grades between an adenoma and a true cancer.

The tumor generally develops in a preexisting goiter, probably remaining latent for some time, then developing rapidly, the patient dying in five or six months. During the course of the disease

many of the symptoms of Basedow's disease occur, at other times the patient complains of heat and of sudden congestion of the head, accompanied occasionally by a temperature of 38 or 39 degrees C.; also the urine shows increased nitrogen elimination, albumin or sugar as in Basedow's disease. There are no premonitory symptoms, the patient seeking advice on the rapid increase in size of the existing goiter.

Owing to the rapidity of the growth of the tumor and its invasion of the neighboring organs, the patient suffers from great functional disturbance, pain radiates to the lower jaw, the teeth, the neck, the temples, the ears or toward the hands; violent pains of the stomach are not uncommon, probably due to pressure on the pneumogastric nerve. Compression of the recurrent laryngeals causes some dyspnea and strident inspiration. Should the esophagus be attacked deglutition is difficult and painful, sometimes impossible when there is thrombosis of the dilated superficial veins of the skin, accompanied by edema of the presternal region.

Rarely does the patient die from the cachexia but by a complication, such as the extension of the disease to the lungs which can be recognized by the blood in the sputum or by a bronchopneumonia or suffocation. Ulceration of the carotids, obliteration of the jugular vein, ulceration of the trachea, perforation of the esophagus and ulceration of the left carotid all occurred in a case reported by Poumet.

The diagnosis is difficult, exploration with the needle is the most likely to give satisfactory results.

The prognosis is very bad, as medical treatment is of no avail, and operation is hardly likely to give good results, considering that in all probability the whole of the gland will have to be removed and that the neighboring tissues are more or less involved.

#### SARCOMA

Sarcoma of the thyroid is rare and, curiously, seems to be more common in men than in women. It usually develops between the ages of fifty and sixty years. It differs from cancer in that it attacks healthy glands more often than those affected with goiter. It may grow to a great size, having a glossy surface and being of a soft consistency. It often contains cysts or calcareous deposits. Pulsating sarcomas have been observed.

The tumor develops in the intervesicular connective tissue and may be either spindle celled or round celled. The evolution is rapid, producing the symptoms of pressure, etc. The patient usually accompanied by the symptoms of Basedow's disease. The treatment is extirpation but

the prognosis is grave. Hydatid cysts of the thyroid are very rare and can only be diagnosed by exploration. The syringe will contain a clear liquid, sometimes purulent. The diagnosis can be made with the microscope and by chemical examination for succine acid.

The treatment consists in opening up the cyst or injecting iodin, when it heals easily; should the cyst break into the trachea the prognosis is very grave.

EPIDEMIOLOGICAL ASPECTS OF TY-  
PHOID FEVER IN IOWA

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Since the establishment of the Division of Epidemiology in 1915, twenty-three field investigations of typhoid fever epidemics have been made. During the same period correspondence investigations have been made in sixty-five cases of endemic typhoid fever. During these investigations every effort has been exerted to determine the source of the infective material and its mode of transfer. The results of these investigations have been carefully analyzed in the hope that the information derived from them would enable us to more intelligently combat typhoid fever in Iowa.

The cases studied were distributed among forty-seven of the ninety-nine counties. The largest number of cases in any one county was sixty-one. Only nine counties had more than ten cases. The wide distribution of these cases, together with the length of time covered by the various investigations, would indicate that the data derived from the careful study of these cases would be fairly typical of the entire state.

In an effort to determine the source of the infective agent and its mode of transfer, inquiry sheets have been devised which cover practically all of the possible modes of infection. The inquiry sheet which is in use at present is shown below.

THE STATE UNIVERSITY OF IOWA LABOR-  
ATORIES

For the State Board of Health  
Epidemiological Division  
Intestinal Infections Inquiry

Case No..... Date of Interview.....  
Town..... Informant.....  
Disease.....

I—IDENTIFICATION DATA

Name? .....  
..... Age?..... Sex?.....  
Nationality? ..... Residence when taken sick?.....  
From.....to.....Previous residence?.....

Occupation?.....Place of business?.....  
How Long?.....Institution attended?.....  
How Long?.....Removed to hospital?.....  
Name and location?.....  
Date reported?.....By whom?.....Address?.....

II—CLINICAL DATA

Previous health?.....Previous attack of same disease?.....  
Date first felt ill?.....Nature of earliest symptoms?.....  
Date stopped school or work?.....Date took to bed?.....  
Date first seen by a physician?.....  
Nature of onset?.....  
Temperature?.....Rose spots?.....Enlarged spleen?.....  
Diarrhoea?.....Character of stools?.....  
Frequency?.....  
Results of Widal?.....White count?.....  
Results of bacterial examination?.....  
Condition and other symptoms?.....  
Diagnosis?.....When made?.....  
Received typhoid vaccine?.....When?.....  
Date complete convalescence?.....Date death?.....

III—SOURCE OF INFECTION

(A) Personal Associations:  
(a) No. of members of family?....No. occupants of house?....  
Those who have had typhoid (etc.)?.....  
When? .....  
(b) Deaths in household and family during past year and  
cause? .....  
(c) Newcomers in household within 3 months?.....  
Where from? .....  
Have any of above had typhoid (etc.)?.....When?.....  
(d) Servants in household?....No.?....Name?.....  
.....For how long?.....  
Home residence?.....Typhoid (etc.) in their home?.....  
Previous attack of typhoid (etc.) in previous places of employ-  
ment? .....  
(e) Has patient been in contact with:  
A known case?.....  
A suspected case?.....  
A case of prolonged fever?.....  
A convalescent case?.....  
With persons in contact with typhoid (etc.)?.....  
(B) Sanitation of Residence 30 Days Prior to Illness:  
Character of residence?.....Sewered?.....  
Water closet? Inside—outside—location?.....  
Privy?.....In use?.....Condition of superstructure.....  
Condition of vault?.....  
Disposal of night soil?.....Well on premises?.....  
In use?.....Relation to privy?.....  
Condition? .....  
House screened?.....Flies present?.....  
Relative abundance?.....General impression of Sanitation of  
premises? .....  
Previous case of same disease in house?.....When?.....  
Previous case of same disease in neighborhood?..When?.....  
(C) Water Used Within 30 Days Prior to Illness:  
Solely? .....Where?.....  
Principally? .....Where?.....  
Occasionally? .....Where?.....  
That used at place of business or institution attended?.....  
Ice how used?.....Source?.....  
Soft drinks?.....Where?.....  
Others in family using same water?.....  
(D) Dairy Products Used for 30 Days Prior to Illness:  
Milk used: as a beverage?....In tea, coffee or cocoa?....  
On cereals?.....Boiled or pasteurized?.....  
Source?.....Loose or bottled?.....  
Other sources?.....  
Ice cream?.....Source?.....  
Butter? .....Source?.....  
Others in family using same dairy products?.....  
(E) Other Food—Meals where taken:.....  
Solely? .....  
Principally? .....  
Occasionally? .....  
Banquets, picnics, excursions or other gatherings attended  
where food, milk or water consumed?.....

Celery?..... Source?.....Lettuce?.....Source?.....  
Radishes? .....Source?.....Oysters, etc?.....  
Source?.....Cold meats?.....Salads?.....  
Source?.....Other foods?.....  
Others in family who partook of same food?.....  
Delicatessen foods eaten?.....Source?.....Nature?.....  
Do servants eat same food as family?.....  
(F) Out-of-town (within-town) Trips Within 30 Days Prior to  
Illness:  
Where to?.....When?.....  
Route taken?.....Stops?.....  
Meals taken?.....Water?.....Milk?.....  
What else eaten?.....  
Place stopped at?.....Sanitary condition?.....  
Places visited?.....  
Whereto?.....When?.....  
Route taken?.....Stops?.....  
Meals taken?.....Water?.....Milk?.....  
Place stopped at?.....Sanitary condition?.....  
Places visited?.....  
Known contact at these places?.....  
Others of family who made same trips?.....  
Bathing or swimming?.....

IV—CONCERNING FURTHER SPREAD

Did patient continue at usual work while feeling ill (milk and food handlers)?.....  
Disposal of discharges during this period?.....  
Antityphoid vaccination of contacts?.....No?.....  
Date of beginning precautions against spread?.....  
Isolation of patient?.....Effective—non-effective? Disinfection of feces?.....Urine?.....  
Manner of disposal of excreta at present?.....  
Screening of patient's bedroom?.....Other prophylactic measures? .....  
Nurse: trained or lay?.....Name.....  
Date of relaxing precautions?.....Condition of infectiveness or discharge?.....  
Investigator.

Since typhoid fever is not a reportable disease in Iowa, the only way the epidemiologist could

learn of the prevalence of typhoid fever in the state was by requests from the local boards of health to investigate epidemics, by reports from the State Board of Health Laboratory of the results of Widal examinations, and by newspaper reports. Figure 1 shows the geographical distribution of the positive Widal examination made in the State Board of Health Laboratory during the year July 1, 1917 to June 30, 1918, and is fairly indicative of the typhoid fever distribution in Iowa.

During the year 1916 there were 155 deaths due to typhoid fever reported to the executive officer of the State Board of Health. If we assume that the mortality rate of typhoid fever is 5 per cent., this would indicate that there was three thousand, one hundred cases of typhoid fever in the state during that year.

In 1916 there were two thousand, two hundred eight Widal examinations made at the State Board of Health Laboratories. Of course, some of these were repeated examinations from the same patient. Others were from patients who did not have typhoid fever. Of the examinations made four hundred seventy were positive. Of these positive reactions some were due to previous attacks of typhoid fever and some were due to typhoid vaccination. Negative reactions were undoubtedly obtained in a considerable number of specimens taken from typhoid fever patients in whom the disease had not progressed suffi-

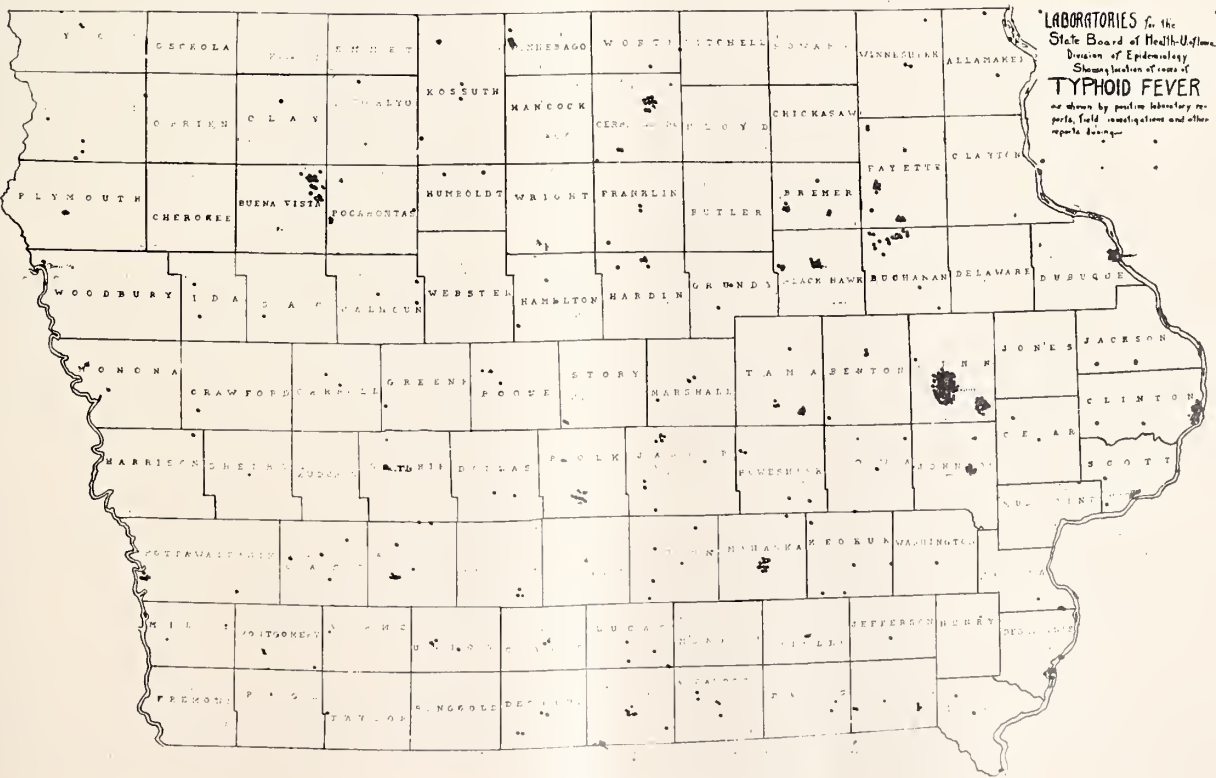


FIGURE 1

ciently to give a positive reaction. It is difficult to estimate the percentage of the total number of typhoid fever cases in the state in which laboratory aids in diagnosis were utilized. It is probable that in only about 20 per cent. of the cases have the physicians availed themselves of the laboratory facilities open to them. In reporting each positive Widal an inquiry sheet is inclosed with the request that the physician fill it out and return it to the epidemiologist.

Field investigations were made in an effort to determine the mode of transfer with the following results:

TABLE 1					
Inestigation Number	Total No. of Cases	Water	Mode of Milk	Infection Contact	Unde-termined
1	5	..	...	4	1
4	5	..	...	3	2
7	10	..	8	1	1
8	11	..	10	1	..
9	14	..	13	1	..
11	12	12	..	..	..
15	49	..	36	11	2
16	7	..	..	5	2
17	14	..	..	14	..
29	5	..	..	5	..
30	3	..	..	2	1
31	16	..	..	14	2
32	7	..	..	7	..
34	9	..	..	8	1
35	13	13	..	...	..
36	13	5	..	1	7
37	14	..	12	1	1
41	8	..	5	1	2
46	9	..	9	..	..
47	29	28	..	1	..
49	5	..	..	5	..
53	32	..	20	12	..
58	14	..	14	..	..
Total .....	304	58	127	97	22

In other words of three hundred four cases of typhoid fever occurring in epidemic form, fifty-eight or 19.1 per cent. were due to water; one hundred twenty-seven, or 41.8 per cent. received their infection by means of milk; ninety-seven or 31.9 per cent. were infected by contact and in twenty-two or 7.3 per cent. the mode of transfer of infective material could not be determined.

In the sixty-five endemic cases studied by correspondence, none could be definitely traced to water, three received their infection through milk, twenty-eight by contact; and the mode of transfer was undetermined in thirty-four.

In endemic typhoid it is much more difficult to determine the source and mode of infection than when the cases occur in epidemics. It is quite probable that a number of the undetermined cases are due to water and a number were also due to milk. It is impossible, however, to determine even the relative percentage of these cases.

The age incidence of the three hundred four epidemic cases is as shown in table 2.

TABLE 2										
WATER	1-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80	Total
Males	3	8	7	11	3	2	0	0	..	*34
Females	2	7	6	4	3	0	0	0	..	22
Total	5	15	13	15	6	2	0	0	..	56
MILK										
Males	7	16	14	12	4	2	0	1	..	56
Females	10	25	16	3	3	7	4	1	..	†69
Total	17	41	30	15	7	9	4	2	..	125
CONTACT										
Males	9	13	10	8	3	0	3	1	..	‡47
Females	8	21	7	6	3	1	3	0	..	49
Total	17	34	17	14	6	1	6	1	..	96
UNDETERMINED										
Males	1	5	2	3	1	0	0	0	..	12
Females	2	2	2	2	2	0	0	0	..	10
Total	3	7	4	5	3	0	0	0	..	22

\*Age not known—2  
†Age not known—2  
‡Age not known—1

For this it will be seen that in typhoid in which the infectious agent is carried by water there is a preponderance of cases among the males. The age incidence is not, however, particularly marked, eighteen of the cases being under thirty years of age, while sixteen were over thirty years of age.

In typhoid fever in which the infectious agent is carried by milk there is a preponderance of cases among the females. Of the total number of cases which received their infection by means of milk, eighty-eight were under thirty years of age, while thirty-seven were over thirty years of age. We therefore see that the preponderance of cases is among the children and young adults.

In typhoid fever in which the infective agent is disseminated by contact the incidence was about the same in both sexes. Again there is a preponderance of cases under thirty years of age, sixty-eight being less than thirty years of age and twenty-eight over thirty years of age. The age distribution of the sixty-five endemic cases is as seen in table 3.

TABLE 3—ENDEMIC CASES										
WATER	1-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80	Total
Male	0	0	0	0	0	0	0	0	..	0
Female	0	0	0	0	0	0	0	0	..	0
Total	0	0	0	0	0	0	0	0	..	0
MILK										
Male	0	0	0	1	0	0	0	0	..	1
Females	0	0	1	1	0	0	0	0	..	2
Total	0	0	1	2	0	0	0	0	..	3
CONTACT										
Males	3	3	3	2	1	1	1	0	..	14
Females	2	5	3	1	1	0	0	2	..	14
Total	5	8	6	3	2	1	1	2	..	28
UNDETERMINED										
Males	4	2	6	6	1	1	0	0	..	20
Females	1	4	4	1	3	1	0	0	..	14
Total	5	6	10	7	4	2	0	0	..	34

Considering all modes of infection in both epidemic and endemic cases the distribution among the sexes is approximately equal, as shown in table 4.

TABLE 4

MALES	1-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80	Total
Water	3	8	7	11	3	2	0	0	..	34
Milk	7	16	14	13	4	2	0	1	..	57
Contact	12	16	13	10	4	1	4	1	..	61
Unde- termined	5	7	8	9	2	1	0	0	..	32
Total	27	47	42	43	13	6	4	2	..	184
FEMALES										
Water	2	7	6	4	3	0	0	0	..	22
Milk	10	25	17	4	3	7	4	1	..	71
Contact	10	26	10	7	4	1	3	2	..	63
Unde- termined	3	6	6	3	5	1	0	0	..	24
Total	25	64	39	18	15	9	7	3	..	180
Total Both Sexes	52	111	81	61	28	13	11	5	..	364

Considering the occupation of the typhoid fever patients there was no one occupation that stood out as being particularly hazardous.

TABLE 5

Bookkeeper .....	1	Machinist .....	3
Blacksmith .....	2	Miner .....	3
Buttermaker .....	1	Mine superintendent .....	1
Butcher .....	1	Mill worker .....	1
Children (at home).....	14	Nurse .....	3
Clerk .....	5	Office boy .....	1
Carpenter .....	6	Painter .....	2
Cook .....	1	Physician .....	1
Coach maker .....	1	Printer .....	1
Car foreman .....	1	Railroad man .....	1
Carriage painter .....	1	Retired .....	5
Drill press operator.....	1	Restaurant keeper .....	1
Drayman .....	1	School boy .....	35
Express driver .....	1	School girl .....	42
Express messenger.....	1	School teacher .....	2
Farmer .....	24	Solicitor .....	1
Factory supt. ....	2	Student .....	9
Factory worker .....	1	Stockman .....	1
Garage worker .....	3	Shipping clerk .....	1
Hotel clerk .....	1	Telephone operator .....	1
Housewife .....	36	Teamster .....	2
Home .....	8	Tailor .....	2
Inmate institution .....	3	Taxicab driver .....	1
Iron worker .....	1	Telephone lineman .....	1
Laundry worker .....	2	Thrashers .....	2
Liveryman .....	1	Veterinarians .....	2
Laborer .....	3	Watch maker .....	1
Lumberman .....	1	Waiter in restaurant.....	1
Merchant .....	5		

Since the source of typhoid bacillus is always man, an effort was made in the investigations to determine the source of infective material. In the epidemics due to water this was well nigh impossible. Of the four epidemics in which the infective agent was carried by water, two were due to city water contaminated with river water. Since rivers are the natural sewers of the regions which they drain, any water from a river draining an inhabited area is likely to contain typhoid bacilli. Two of the epidemics in which the infective agent was carried by water were due to contaminated wells.

In the nine epidemics in which the infective agent was carried by milk, the source of infection in three was patients sick with the disease and in six, convalescent carriers.

Of the ten epidemics due to contact, the source of the infective agent in eight was patients suffering from the disease and in two, convalescent carriers.

In the endemic cases studied, the source of infective material in six of the cases was from patients suffering with the disease, from convalescent carriers in twenty-one, and healthy carriers in one. In the investigations made so far only one healthy carrier of typhoid bacilli has been discovered. A number of the so-called undetermined cases in these investigations are probably due to healthy carriers.

Because the appropriations made to the State Board of Health Laboratory are too meager to permit examination of feces for the isolation of typhoid bacilli as a routine procedure, it has been difficult to institute carrier searches to a sufficient degree to find the healthy carriers.

By the term convalescent carrier we mean any person harboring typhoid bacilli who has previously had typhoid fever. This term is used regardless of the time that has elapsed since recovery. By the term healthy carrier as used in this paper we mean a person who harbors typhoid bacilli and yet who has never had typhoid fever.

The prevalence of paratyphoid fever in Iowa has never been carefully studied. There are undoubtedly a number of patients suffering from paratyphoid infection in the state each year. In the past these cases have been relatively insignificant in comparison with typhoid fever. In 1915 there occurred an epidemic of paratyphoid fever which was studied and reported by Levine and Eberson<sup>1</sup>. The mode of infection in this epidemic was milk contaminated by bottles used by a convalescent case.

While Iowa has been relatively free from paratyphoid fever in the past we have every reason to expect that it will be more prevalent in the future. The soldiers which Iowa has contributed to the great war have been exposed to both typhoid and paratyphoid infection. While they have been protected from these infections by vaccines, vaccine gives little if any protection from the carrier state. There will undoubtedly be a considerable number of healthy carriers among the men who return.

The distribution of typhoid fever in Iowa was carefully studied by Levine and Middleton<sup>2</sup>. From this study they conclude that typhoid fever in Iowa is an urban rather than a rural disease. Their study would tend to indicate that the incidence of typhoid fever varies directly with the density of population. The distribution accord-

1. Max Levine and Frederick Eberson. Jour. of Infectious Diseases, Vol. xviii, page 143 to 150.  
2. Journal Iowa State Medical Society, Vol. xiii, page 37.

ing to population in the epidemiological investigations is shown in table 6.

TABLE 6—DISTRIBUTION OF CASES STUDIED IN FIELD INVESTIGATIONS

Community	No. of Epidemics	No. Cases
Rural .....	3	26
Towns 100 to 1000.....	5	44
Towns 1000 to 5000.....	8	84
Cities 5000 to 10,000.....	2	81
Cities 10,000 to 20,000.....	2	17
Cities 20,000 to 40,000.....	1	13
Over 40,000 .....	2	39
Total.....	23	304

DISTRIBUTION OF ENDEMIC CASES STUDIED BY CORRESPONDENCE INVESTIGATION

Community	No. of Cases
Rural .....	24
Towns of 100 to 1000.....	13
Towns of 1000 to 5000.....	15
Cities of 5000 to 10,000.....	1
Cities of 10,000 to 20,000.....	5
Cities of 20,000 to 40,000.....	3
Over 40,000 .....	3
Total.....	65

Levine and Middleton state that the typhoid fever death rate in Iowa is diminishing. Their statistics indicate that the typhoid fever death rate in Iowa in 1916 was 6.5 per 100,000. While this death rate compares favorably with the death rate from typhoid fever in sixty large cities, analyzed in the Journal of the American Medical Association,<sup>3</sup> it is, however, susceptible to further reduction.

If the data obtained from the epidemiological investigations of typhoid fever are typical for the entire state it would indicate that the chief cause of typhoid fever in Iowa is milk or dairy products carrying typhoid bacilli. This condition can be remedied: 1. By detecting typhoid carriers and eliminating them from positions where they have an opportunity of handling milk, dairy products or other food. 2. By thorough pasteurization or boiling of milk. 3. Thorough cooking of other foods.

Milk is frequently contaminated by means of bottles or other milk containers coming from homes in which typhoid fever exists. Two of the largest epidemics of typhoid fever included in this study were due to milk contaminated by bottles coming from homes in which typhoid fever existed. No milk bottle or other receptacle for milk should be handled by any person caring for a typhoid fever patient if the container is to be returned to the dairy. All milk bottles should be sterilized before milk is placed in them.

The second most important cause of typhoid fever in Iowa seems to be contact with patients suffering from the disease and with convalescent carriers. This mode of infection can be reduced by the careful isolation of patients, careful col-

lection of infective material at the bedside and immediate disinfection. Convalescent patients must be warned of the danger of infecting others and should be instructed to carefully collect and disinfect intestinal and urinary discharges. They should also use great care in washing their hands after visiting the toilet.

While water is apparently playing a minor part in the dissemination of the typhoid bacillus at present, we should not neglect improvement of public and private water supplies.

The fundamental principles underlying the control of typhoid fever is the early diagnosis of cases; careful isolation of cases; careful collection of all infective material, careful disinfection of all infective material. Prompt reporting to the health authorities, observation of all contacts, immunization of all contacts, determination of mode of infection and general sanitary measures.

The early diagnosis of cases can best be accomplished by blood cultures. At the present time the state offers no facilities for this laboratory aid. It is hoped that within a short time the Epidemiological Laboratory will be able to render this assistance to the physicians of the state. A blood culture is nearly always positive during the first week of the disease. Bacterial examination of the feces is the next most important laboratory aid in the early diagnosis of cases. Typhoid bacilli may be isolated from the feces of patients after the first week until convalescence. The Widal reaction is an important aid in the diagnosis of cases, but unfortunately it does not appear until the disease has progressed for several days and sometimes weeks.

The typhoid fever patient should be isolated. It is much better to have a person trained in the care of infectious diseases to attend him. If this is impossible some intelligent person should be given careful instructions in the care of the patient. This person should under no circumstances prepare food to be eaten by other members of the family. The attendant should devote all of her time to the patient. The attendant should carefully collect and disinfect all infective material and all substances soiled with infective material.

While typhoid fever is not a reportable disease in Iowa it should be. Health authorities can be of little assistance in the control of disease unless they know when and where and under what circumstances disease exists.

The use of typhoid vaccine should be encouraged. Typhoid vaccine has practically eliminated typhoid fever from the army of the United States and all the other great armies of the world.

Since paratyphoid fever is likely to become increasingly prevalent the use of typhoid-paraty-

3. Journal American Medical Association, Vol. lxxii, page 997.

phoid vaccine is essential. The reaction from the triple vaccine is only slightly greater than when the single typhoid vaccine is used.

Every case of typhoid fever should be investigated in order that the mode of infection may be determined. If we know the mode of infection it is easier to control the further dissemination of infective material by that means.

General sanitary measures are the safeguarding of water, milk and food supplies, proper disposal of human excrement, eradication of flies and fundamental principles of personal hygiene.

If we use all of these measures we may hope to still further reduce the typhoid fever death rate in Iowa.

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### FIVE CASES OF STRANGULATED HERNIA, COMPLICATED BY ACUTE APPENDICITIS

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L. H. KORNDER, M.D., Davenport

From the Surgical Clinic of Drs. Hageboeck, Stoecks and Maxwell

Johnson, in his surgical diagnosis, says that the reduction of strangulated hernia by taxis is no longer to be regarded as the safest method of treatment. Recent experiences have pointed out most forcibly the truth of this statement. For this reason, the following cases are submitted as proof that if reduction by taxis had been successful the result could only have been a ruptured pus appendix and a peritonitis. Therefore, it is hoped that they are of sufficient general interest to be reported here.

**Case 1.** Mrs. B., aged 77, housewife—Gave the history of a right femoral hernia for the past fifty years. The hernia had never given any trouble until the latter years when a tumor mass repeatedly developed. But this never occasioned much pain and was always readily reduced by her physician. Suddenly during an attack of coughing she felt severe pain in the right groin. Attempts at reduction were unsuccessful. No bowel movements were obtainable and after a few hours, severe vomiting set in. A diagnosis of strangulated hernia was made and an immediate operation advised, but not consented to until after a delay of twenty-four hours. The operation revealed that a portion of the ileocecal valve and the entire appendix had passed through a small femoral ring. Bands of adhesions had already been formed between the parietal and visceral peritoneum. These held the descended viscus firmly in place. The appendix was acutely inflamed and almost twice its normal size. Actual pus had not yet formed, but the hernial sac was filled with serous exudate. Appendectomy was performed, the hernia repaired and the patient made an uneventful recovery.

**Case 2.** Miss C., aged 23—Had been troubled with a femoral hernia since childhood. A hernia had developed repeatedly, but its reduction never offered much difficulty. On this occasion, however, the mass which had formed in the course of a contested tennis game, was not reducible and caused extreme pain. Soon after the onset of the pain a slight bowel movement was obtained, but continuous vomiting set in, fecal in type. This condition continued, the patient grew progressively worse and operation was performed. Here the same misplaced viscera were found as described under Case 1. However, no adhesions had formed, but the bowel was intensely inflamed, of a dark red and purple color, and thoroughly edematous, while the appendix itself was gangrenous. After appendectomy and herniotomy, an uneventful recovery was the result.

**Case 3.** Mr. P., aged 73, a farmer. Had always worn a truss for an inguinal hernia since he was a boy. In latter years however, the truss would not retain the hernia, but his physician never experienced much difficulty in replacing the descended bowel. Without any apparent reason, a large mass developed low in the right groin and filled the entire scrotum. Severe pain, complete obstipation, and slight vomiting were present. Repeated attempts at reduction were unsuccessful. The patient however, refused to be operated on although the diagnosis of strangulated hernia was made. Until gradually the pain grew so severe and the vomiting so extreme, that willing consent for an herniotomy was given. The findings were a firmly incarcerated lower ileum and cecum, with the appendix bound to the inflamed cecum by bands of adhesions. The appendix itself was four centimeters in diameter and full of pus. The well formed adhesions alone had prevented a rupture. Here again the usual appendectomy was done, the hernia repaired and the patient was able to leave the hospital in two weeks in spite of his extreme age.

**Case 4.** Mr. H., age 28—A pugilist by profession, and as perfect a physical specimen as one ever has the opportunity to see. A physician, however, had told him some years ago that he had an unusual large inguinal ring on the right side but he had never experienced any difficulty nor worn a truss. But during the last round of a prize fight a sharp pain developed in his right side. The pain was so severe that all further boxing activities had to be stopped. An examination showed that a large mass had descended into the scrotum, this was irreducible. An immediate operation showed that a large sac of peritoneum, containing the cecum and a considerable portion of the lower ileum, had descended into the scrotum. These viscera were firmly matted together by adhesions and embedded within them was a highly inflamed and gangrenous appendix. This was thickened and contained an ounce of pus. Two weeks after the operation the patient left the hospital, completely restored to health and resumed his calling.

**Case 5.** Mr. K., age 59—A farmer by occupation, who knew for the past twenty years that he had an

inguinal hernia. The rupture however, had never given any trouble, until a week ago. At that time he noticed a dragging pain in his right side, which became progressively worse. However, he continued to work in the fields until the pain became unbearable. An examination revealed a large mass. This was reduced and a well fitting truss was adjusted. However, the pain continued and on the next day the patient came to the doctor's office to have the truss readjusted since he thought that it was causing the continued pain. While in the office he began to vomit and feel extremely nauseated. Gastric lavage was employed in the hope that this would relieve the nausea, but without result. Since no bowel movements had been obtained for the past twenty-four hours, enemas were given to remove the doubt which had arisen regarding the existence of an intussusception. No results were obtained and an immediate operation was advised. The operation revealed a slight intussusception of the ileum into the cecum. The appendix was inflamed and gangrenous in several spots. The bowel itself was highly discolored and very edematous. A resection however, was not considered necessary, so that a simple appendectomy and a reduction of the intussusception alone was done. An uneventful recovery resulted.

#### COMMENT

In considering the history of these cases it should be remembered that they were brought from neighboring towns as emergency cases and for that reason no further preliminary diagnostic laboratory work was done. This explains their briefness. However, the essential lesson to be gained from the above account is that if gentle manipulations are unsuccessful any attempt at reduction by taxis should cease and surgical interference immediately resorted to. Particularly so, since these cases illustrate that the descended viscera may be in an actual state of inflammation and of pus formation. One can readily see that any undue force employed in such cases, would result disastrously to the patient, by breaking down the confines of accumulated pus and so cause a general peritonitis.

Whether these were cases of appendicitis primarily and as a result of this pathology they caused the irreducible hernia is hard to say. One is tempted to believe this in view of the findings in case four. Here the operative findings within two hours after the initial formation of the hernial mass, showed the presence of an acute pus appendix. Consideration of the other four cases, however, would lead one to believe that the appendicitis was the result of the extreme venous congestion and edema existing in the incarcerated mass of bowel. Possibly these factors furnished the necessary culture media for the locally ever present bacteria. Especially so since in all cases the pus was due to the colon bacillus.

It is further of interest to note that the age incidence is of no importance. True, all of these patients were adults but their age varied from that of twenty-three to that of seventy-seven. This in itself throws an interesting sidelight on the possibilities of hernia and appendicitis developing in the aged.

#### CONCLUSION

Since every hernia offers the potential possibilities of becoming a grave danger to the individual afflicted, operative repair at an early date should always be advised. But if the reduction of a hernial mass by taxis is demanded all manipulations should be done with extreme gentleness. If gentle measures are unsuccessful, the operative reduction rather than force, is by far the safest procedure.

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#### INTERNAL REVENUE SERVICE

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Dubuque, Iowa, May 14, 1919.

To all Persons Selling Glasses or Spectacles:

You are advised that effective April 1, 1919, all oculists, opticians and others supplying or selling glasses must add a 5 per cent. revenue tax to the price of all new glasses, any part of which is gold, gold filled, platinum, silver or imitation of these metals, collecting this tax from the patient or user. A separate record of these collections must be kept. This 5 per cent. tax applies to spectacle and eye glass frames, as well as to lorgnettes, eye glass chains, reels, or any item in optical merchandise made of or ornamented with platinum, gold, silver or imitations thereof, the tax being collected on the price of the completed spectacles or eye glasses, including the lenses, when sold by the retailer. No tax is to be collected on lenses only inserted into frames or mountings the property of the patient. This tax also applies to opera and field glasses.

If you are liable for this tax you should advise this office immediately making request for blanks to be used in reporting tax upon jewelry.

This is a monthly sales tax, the taxpayer having thirty days in which to make return and pay tax for the preceding month. Report must be made promptly and the tax paid when due, as heavy penalties accrue for delinquency.

LOUIS MURPHY, Collector,  
Treasury Department.

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Lieutenant Commander R. B. H. Gradwohl, Medical Corps, U. S. N. R. F., has returned from the service and resumed his work as director of the Gradwohl Biological Laboratories and Pasteur Institute of St. Louis.

Owing to the efficient organization of the Gradwohl Laboratories, they were not closed during the war period; and now that Dr. Gradwohl has returned, the profession is assured that renewed efforts will be made to assist all those who are in need of laboratory aid.

# The Journal of the Iowa State Medical Society

D. S. FAIRCHILD, Editor.....Clinton, Iowa

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## CONSTRUCTIVE LEGISLATION HAVING A MEDICAL RELATION AND OF GREAT BENEFIT TO THE STATE

Heretofore we have been called upon to record vicious bills defeated, rather than good bills passed. In the June number of the Journal we published in full two important bills, the "Indigent Adult Bill" and the "Psychopathic Hospital Bill." We print them in full for the purpose of informing the profession as to their provisions and the manner of procedure in securing a transfer of patients to the University Hospital. These bills were not the product of a sudden impulse on the part of the legislature, but the product of deliberate study by men interested in general welfare work and the presentation of classified information which enabled the legislature to consider deliberately the questions involved and the needs of the general public. Indeed the importance of the matters included in these bills have been under discussion several years.

In the present number we publish two other bills of material importance to the public and to the profession. The reorganization of the homeopathic medical department of the State University is also the product of many years consideration. Three or four years ago we advocated editorially what has actually come to pass. At that time the Iowa Homeopathic Journal criticised us for showing too much interest in what was not our affair. It is gratifying to read in a recent number of the Iowa Journal of Homeopathy, April, 1919, a friendly acceptance of the reorgan-

ization plan presented by the university and by the legislature. The Journal states: "The causes which have led to this final step are well known to most the readers of the Journal. They are many but only one need be mentioned, viz.: the indifference of the graduates and other Homeopaths of the state. This indifference has been as great towards Homeopathy as towards the college. Had the homeopathic physicians of Iowa been as active in getting young men and women a study Homeopathic medicine as they were in the days of the preceptor there would have been forty students in attendance at our college at the present time instead of four, and the college would continue its existence." The Journal further says: "The state legislature at the same time that it repealed the law which had created and maintained the college enacted another law which authorized and directs the board of education of Iowa to establish and maintain a department of Homeopathic Materia Medicine and Therapeutics in the College of Medicine. The head of this new department in the College of Medicine is to be in charge of a homeopathist who is a member in good standing in his state society and the American Institute of Homeopathy."

This arrangement permits students who elect to do so to specialize in homeopathic materia medica and therapeutics.

## MEDICAL DEPARTMENT OF THE STATE LIBRARY

Some years ago the question of a medical department of the state library began to be agitated. Judge Deemer and Johnson Brigham being particularly active. Every department of knowledge was represented in the library except medicine. Johnson Brigham as state librarian and Judge Deemer a member of the library committee noting this fact conferred with a few medical friends, Drs. Pierson, Hill and Fay in particular. Some local interest was manifested in developing a medical branch which should compare in some degree with the law library. Bills were presented to the legislature four years ago and again two years ago but for some reason or other some county medical societies and many individual medical practitioners opposed the measure and it failed. At the last session, the legislature passed the bill printed in this number of the Journal. It does not seem necessary for us to point out the advantages of a working state medical library which will bring the medical literature of the world to the Iowa physician on application. Judge Deemer did not live to realize the success of his long continued disinterested work in rounding out the great state library by adding a medi-

cal department; and it seems to us that the library committee should place a tablet in the medical library as an appreciation of our obligations to Judge Deemer for his valuable services to the medical profession.

The medical profession should feel that the fact of fundamental importance in securing legislative enactments is the reasonableness of the act, the full and careful digestion and presentation of the facts. A comparison with other states will show that Iowa legislatures are fairly considerate of the views of the medical profession. We have been particularly fortunate in having in the last legislature a medical gentleman who secured the confidence of his associates in the house and who fully understood the medical subjects before that body, we refer to Dr. G. A. Smith of Clinton.

### IOWA STATE MEDICAL DEFENSE

Certain commercial activities in the Iowa legislature brought up the question of devising a different method of conducting medical defense of the State Society. Eleven years experience with a method which is now in operation in nearly all the states and in some of the older states much longer than in our state where commercial defense has always been lawful, has convinced us that it is not advisable to change our plan of operation. There should be no conflict between our defense plan and that of commercial companies. Our plan contemplates the protection of the professional character and dignity of members, while the commercial companies protect against financial loss and may be extended to those who are not eligible to membership in our Society. There is nothing to prevent our members from supplementing our State Society defense by carrying commercial insurance against malpractice, in fact, in many states the commercial companies have eased the burden of the State Society defense by dividing the burden of legal expense. In Missouri during the administration of one insurance commissioner the State Society was compelled to carry the entire burden of defense of the members of the State Society. The succeeding commissioner reversed the decision of his predecessor.

When the Iowa State Medical Society organized the present plan of medical defense, the Fort Wayne Company was in full operation, and the reason for the adoption of a state defense was the protection of the good name of the doctor who might be sued for alleged negligent and unskillful treatment. For a short time one of the old time companies sold an indemnity policy in the case of a judgment obtained against a doctor for mal-

practice. But the attorney general ruled that this kind of insurance was illegal. Later, when the first Fort Wayne Company sold out to a rival company called the New Fort Wayne Company, the insurance department, under the advice of the attorney general, refused to grant a license to that or any other commercial company, the right to conduct an insurance which should undertake to indemnify or protect a doctor against the consequences of his own illegal act, (the law assuming that malpractice was an illegal act and was contrary to public policy).

Following these discussions the burden of defending the members of the Iowa State Medical Society has rested on the medico-legal committee.

In the beginning, the committee limited its activities to furnishing legal services alone. As experience accumulated and an increased assessment on members was voted by the House of Delegates, the committee has been able to pay in addition to legal fees the necessary court expenses. The committee looked forward to the time when a productive fund would be accumulated which would permit the committee to pay judgments or settlements made necessary. (The reader is referred to the statement made under the resolutions passed by the House of Delegates.) The passage of the bill printed with the transactions has made it impossible to extend the work of the committee unless the Society authorizes the organization of a mutual company with all the machinery authorized by law. After mature deliberation and consultation with the board of trustees and others and having before us a competent legal interpretation of the law together with an exposition of our rights to operate as a committee under the old rule, this committee deemed it advisable to continue under the plan adopted in the beginning of our work. The committee feel that the fundamental purpose of a society protection scheme is to protect the good name of the profession by providing a sound method of guarding the professional reputation of members who have had the misfortune to be sued for damages by a dissatisfied patient, or by one hoping to gain something by blackmail methods. There is a side of this question that cannot be measured by dollars and cents, the usual standard measure of business, we refer to the ethical side, even if the doctor is indemnified against financial loss there is a possible loss of professional reputation and a degree of humiliation sometimes hard to bear. The committee feel that preventive measures may be applied as in the matter of prevention of diseases by keeping before the profession the risk of over confidence and the application of measures of treatment that

have not received full professional approval.

We trust there will be no controversy with insurance companies organized under the law. The defense committee is not organized for profit and can conduct a safer defense because we have machinery that a commercial company cannot command. The commercial company can contract to carry the financial risk and pay judgments that the State Society is forbidden to do under the new law.

Workmen's compensation cases after July 4 will be under the new law passed by the Thirty-eighth General Assembly, effective on that date.

Injured workmen will be entitled to compensation on the basis of 60 per cent. of their weekly wage instead of 50 per cent. as specified by the old law.

Increased hospital benefits to the amount of \$100 are authorized.

The new law recognizes the contention of Industrial Commissioner A. B. Funk that the loss of the second eye should be compensated more liberally than the loss of the first eye, since such an accident would cause total disability. This has been the position taken by Industrial Commissioner Funk for some time. The new law will pay compensation for a period of two hundred weeks when the second or last eye is lost. The old law paid such compensation for one hundred weeks.

An important change has been effected in the law in the matter of reckoning the basis of payment for injured coal miners. Under the old law the time was figured on the average number of days all of the mines of the state operated. Under the new law the time is figured on the actual number of days per year the mine operates in which the injured man has been employed.

On this point the new law reads:

"As to employes in a business or enterprise which customarily shuts down and ceases to operate during a season of each year, the number of working days which it is the custom of such business or enterprise to operate each year shall be used instead of three hundred as a basis for computing the annual earnings provided the minimum number of days which shall be used as a basis for the year's work shall not be less than two hundred."

### MEDICAL NEWS

Mr. Max E. Witte will soon celebrate his twenty-first year as superintendent of Clarinda State Hospital for the Insane. He came here from Independence in 1898 where he was assistant superintendent at that institution. Since he has been at the head of the local hospital he has made a name for the institution in the way of efficient management as well as gaining a reputation for himself in the state as an authority in medical circles, and especially along the lines of treating insanity. At least the State Medical As-

sociation saw fit to elect him last year, as the president of the Iowa Medical Association.

Dr. Edward Hornibrook, of Cherokee, pioneer physician, with his characteristic public spiritedness and generosity of heart, comes forward with a magnificent offer of a free site for the community building, which it is proposed to erect, as a memorial to the soldiers and sailors of the world's war. The estate tendered is the Hornibrook home consisting of four lots beautifully located on East Main street opposite the Lincoln school and in the block adjoining the business section. It is one of the choice locations for such a purpose to be found in the city, and its value has been estimated at \$10,000. The only condition attached to the offer is that the public shall provide, by August 1, a fund of \$30,000 for the erection of a memorial building, which building shall be devoted to patriotic and community purposes and be accessible to the people of Cherokee and Cherokee county.

Miss Charlotte A. Aikens of New York, editor of the *Trained Nurse and Hospital Review* (formerly superintendent of Methodist Hospital, Des Moines), has been engaged to make a tour of the Argentine Republic, Uruguay, Chile, Bolivia and Peru, to study the conditions which prevail there and the needs of the field for hospitals. After her report has been received, the number and location of the hospitals and health stations to be established in the five republics as a part of the centenary program of the Methodist Episcopal Church will be announced. There is at present not one hospital in the entire South American continent under the direction of any American mission board, and there is just one union dispensary in Rio de Janeiro. By interdenominational agreement the contemplated hospitals are placed under the supervision of the Methodist Episcopal Church, which is raising \$120,000,000 for world upbuilding and the extension of missionary work.

### EDITOR OF HOSPITAL JOURNAL GOES TO SOUTH AMERICA FOR METHODIST CENTENARY

Hospitals are to be built in the five republics of South America, which, by interdenominational agreement, have been placed under its supervision, by the Methodist Episcopal Church as a part of its missionary centenary program the purpose of which is to raise \$120,000,000 (in connection with the southern branch of the denomination) for world upbuilding and the extension of missionary work.

There is at present not one hospital in the entire South American continent under the direction of any American Mission Board. There is one union dispensary in Rio de Janeiro—that is all.

The Methodist Foreign Mission Board has engaged Miss Charlotte A. Aikens, editor of the *Trained Nurse and Hospital Review* (New York) to tour Argentina, Uruguay, Chile, Bolivia and Peru to

study the needs of the field and the conditions which prevail there. After her report has been received the number and location of hospitals and health stations to be built in the five republics as part of the centenary program will be announced.

Miss Aikens, after a post-graduate course in nursing at Polyclinic Hospital, New York, was in succession, superintendent of the Sibley (Methodist Episcopal) Hospital in Washington, D. C., of the Iowa Methodist Hospital in Des Moines and of the Columbia Hospital in Pittsburgh. She is known as a writer of text-book on hospitals and nurses' training. She has been given a leave of absence by the Trained Nurse and Hospital Review to make the South American trip for the Methodist Missionary Centenary.

### CHURCH ORGANIZES MEDICAL BOARD TO SUPERVISE HEALTH OF ITS MISSIONARIES

A medical department, under the direction of the Board of Foreign Missions, to guard the health efficiency of its missionary workers, has been established by the Methodist Episcopal Church in connection with its missionary centenary to raise \$120,000,000—\$85,000,000 for the church north and \$35,000,000 for the church south—for general world upbuilding and the extension of its missionary work at home and abroad. No other church has organized such a department.

Dr. J. G. Vaughan, M.D., formerly of Nanchang, China, is executive secretary of the new department with temporary offices at the headquarters of the Missionary Centenary, 111 Fifth avenue, New York. Dr. Vaughan was graduated from the Northwestern Medical School, Chicago, in 1907 and for six years was a medical missionary in China. On his return to this country in 1916 he became connected with the office of the chief surgeon of the Chicago, Rock Island & Pacific Railroad in Chicago. He left that position to organize the new medical department of the Methodist Foreign Missionary Board.

Missionaries on the field and on furlough will have the benefit of counsel from the new department, while all candidates will undergo their medical examinations from the physicians in charge.

To provide for the best service in this respect, suitable offices and equipment will be obtained, with a sufficient staff of trained workers to meet the increasing demands arising from the enlarging force which the Centenary program will require in the field. The church invests from \$20,000 to \$50,000 in each missionary for life work and it will be one of the duties of the medical department to see that each person accepted is a "good risk." Supervision of the health of the workers in the field will gradually be taken over by the new department.

We do not carry announcements in our advertising pages, which we could not endorse editorially. We try to be consistent.

### SENATE FILE NO. 291

By Newberry

February 22, 1919.

#### A Bill for an Act

Establishing a medical department of the state library, to provide for the cataloging and shelving of books thereof, making appropriation therefor, and providing for an assistant librarian and fixing the salary of such assistant.

Be it Enacted by the General Assembly of the State of Iowa:

Section 1. That a medical department be established in the state library, to be under the direction of the state librarian and under control of the board of trustees of the state library and historical department, to which department shall be turned over all the medical and surgical works and periodicals now in the miscellaneous department of the state library, and all the medical and surgical works and periodicals already contributed, or to be contributed, to the state library, the same to be cataloged and shelved in suitable rooms in connection with the miscellaneous department of the state library, and make available for reference use by physicians and surgeons and students of medicine and surgery, and kindred sciences; also to members of the board of health, the board of control, the pure food department and to the general public.

Sec. 2. There shall be annually appropriated from any money in the state treasury not otherwise appropriated the sum of two thousand dollars (\$2,000) for the use of the medical department of the state library, the money to be expended under the direction of the board of trustees of the state library and historical department, in the purchase of books and periodicals deemed necessary to the upbuilding of said department, and the purchase and transmission of material and information to the physicians and surgeons of the state.

Sec. 3. There shall be annually appropriated, from any money in the state treasury not otherwise appropriated, the sum of two thousand dollars (\$2,000) as a salary for an expert librarian trained in medicine and surgery and in the languages in which medical and surgical literature is most commonly written and published.

Sec. 4. No preference shall ever be given to any school or schools of medicine, but all shall be treated alike; and books, periodicals and pamphlets shall be secured for any and every legally recognized school without discrimination.

### SENATE FILE NO. 339—EDUCATIONAL INSTITUTIONS

By Byington

March 8, 1919.

#### A Bill for an Act

To repeal Sec. 2, Chapter 168, Acts of the Sixteenth General Assembly, and Sec. 2640-a Supplement to the Code 1913; and to authorize and direct the State Board of Education to establish and maintain a department of homeopathic materia medica and therapeutics in the College of Medicine of the State University of Iowa.

Be it Enacted by the General Assembly of the State of Iowa:

Section 1. That the law as it appears in sec. 2, chapter 168, acts of the Sixteenth General Assembly; and sec. 2640-a of the supplement to the code, 1913, and the same is hereby repealed.

Sec. 2. The State Board of Education is hereby authorized and directed to establish and maintain a department of homeopathic materia medica and therapeutics in the College of Medicine of the State University of Iowa, with suitable and sufficient hours and rooms for said department.

Sec. 3. That the use of the University Homeopathic Hospital shall be left to the discretion of the board.

Sec. 4. All acts and parts of acts inconsistent with this act are hereby repealed.

### IN MEMORIAM

At a meeting of the Fayette County Medical Society held May 5, the following resolutions were unanimously adopted:

Whereas, Our associate, Capt. Walter H. Fox, has been summoned to his final reward, and taps has sounded over his grave on a foreign battlefield,

Wherefore, Be it Resolved, That this Society give public expression of its loss of one who was a native of this county and who spent his brief but worthy, honorable and useful lifetime as a highly respected and active citizen of this community.

His wonderful and varied activity as a student in his chosen profession, as an instructor in his Alma Mater, member of the Waucoma School Board, physician and surgeon, president of this Society, and captain in the Medical Corps of the United States Army in foreign service, indelibly stamps him as a man of more than ordinary ability, an indefatigable worker, sympathetic, conscientious and faithful to his every trust.

His intense patriotic zeal and enthusiasm and his great love for suffering humanity led him to give up a lucrative private practice, to bid farewell to his beloved family and offer his service and life to his country. His splendid talent received ready recognition everywhere and shortly before his lamented and untimely death he was decorated by the Servian government for the distinguished and heroic services rendered her stricken soldiers.

At home and abroad, in public and in private life, he was a man of integrity, honorable and upright, and inspired with that truly laudable ambition of serving his fellowmen. We share with the members of his family and his wide circle of personal and professional acquaintances, the personal loss of his genuine comradeship, his inspiring personality and his professional genius.

Resolved, That a copy of these resolutions be presented to the family of the deceased, to the local press for publication, to the Journal of the Iowa State Medical Society and that the secretary of this Society spread them upon his records.

## Minutes of the Iowa State Medical Society Sixty-eighth Annual Session, Des Moines May 7-8-9, 1919

Wednesday, May 7, Morning

The Sixty-eighth Annual Session of the Iowa State Medical Society was held in Plymouth church, Des Moines, May 7, 8 and 9, 1919.

The Society was called to order at 9:30 o'clock by the President, Dr. Max E. Witte, Clarinda. Following invocation by Rev. Charles Elmer Chapler, Des Moines, Mayor Tom Fairweather, Des Moines, on behalf of the city, extended to the profession an address of welcome as follows:

Mr. President, Ladies and Gentlemen:

It is a pleasure for me to meet with you and to extend to you on behalf of this city a royal welcome. This being your sixty-eighth annual convention, you undoubtedly have had said to you sixty-seven different times by those representing the various cities in which you have convened, that on behalf of the city the speaker extended to you, the keys of hospitality. And now, my friends, I just wish to change the sixty-eighth welcome slightly and to say to you that we have no keys to present. I never like the idea of presenting a key to a delegate, because I do not wish him to think for one moment that the hospitality of this city is kept under lock and key. So this morning there will be no keys to present and no extra baggage to carry on your key rings. There is only one brand of hospitality, whether you come from the west, the east, the north or the south of this great state, and that is the brand of hospitality that was brought here years ago and established over the fertile prairies of this state—the **Iowa** brand of hospitality, and when you have said that you have said it all.

It is a great pleasure to have meeting in our midst, the doctors of this great state. By profession I happen to be an attorney, although I do not know that I could say that to my brother attorneys because we might have to watch them a little were they here. You know that it is human nature to watch an attorney, but we feel very safe with you in our midst, ladies and gentlemen. We all, laymen and doctors alike, should be proud of your profession. I know that you are proud of it, and I want to say to you, my friends, and I say it in the spirit of sincerity and not of flattery, that I know of no class of men or women, I know of no profession, that has made the sacrifices that your profession has made during this great conflict which has just closed. I know some of your problems, and I know that behind the profession is the truth. I know what you have gone through during the past year and a half on account of the great epidemic that we have had. I know how true you have been to the ethics of your profession, and the same has held true over this great state. And I wish particularly to say that I know of no more faithful men than the members of the medical profession of this city as they stood shoulder to

shoulder combating that dread disease, Spanish influenza.

A week ago last Friday morning it was my good pleasure, out in New York harbor on a little tug, to look away over against the blue and to see through a pair of glasses what was apparently a dot; but time brought closer and closer and closer that dot until it developed into something larger. Watching it every moment as time passed, I finally beheld a great American liner, the largest afloat, loaded with American soldiers, Iowa soldiers—the Rainbow Division. And there was just one thing that I regretted and it was this: That you could not all have experienced the feeling that I had as we stood alongside that magnificent structure 950 feet long and drawing some forty odd feet of water and saw her crowned to the uppermost mast with Iowa soldiers—the boys from your town, the boys from my town,—and to hear them cheer, "Hurrah for Iowa!" And I want to bring this message to you this morning: The first man whose hand I grasped on the landing of that boat was one of your own profession, Col. Fairchild, through whose courtesy I met some of the other doctors who were officers of his regiment. And I said, I thank God that the boys were in such good hands, because, besides being experts, besides being well equipped in their profession, they were men.

Times have changed. Thirty-five years ago I lived in a little town in northwestern Iowa, and as I turn back the pages of memory I think of the men who were there then. Most of the physicians who were active at that time and in the prime of life, are sleeping out in that little silent city west of town. In those days I looked upon the doctors as I looked upon the preachers, for they not only gave medical advice, but they were men—men who stood for something in the community where they lived. And recently in picking up my little home paper published in Cherokee, I found where that grand old physician and surgeon of the northwest, Dr. Edward Hornbrook of Cherokee, said: "Here is my home, the home in which my family was born and reared, if you will build upon this property a memorial it is yours." My friends, that is the kind of spirit, that is the kind of enthusiasm, that is the kind of manhood, that makes your profession the enviable profession that it is and causes you to stand high in your community. But the conditions under which your profession carries on its work have changed. I can remember when it took half a day to drive to the city to tell the doctor to come and see a patient, and half a day for the doctor to come out. Many times we had to get up in the night and ride to the city or to the village on horseback to ask the doctor to come. And if he belonged to the real aristocracy of the profession he drove out in a spider phaeton, and as a rule if his practice warranted it, he supported a driver. Most of the old-time doctors smoked, although they advised their patients against the habit. But now how things have changed: Step to the telephone and in fifteen minutes the physician is at the bedside of the patient. This is due to the ingenuity

and progress of the American people—the telephone, the automobile.

In conclusion I wish to repeat that we are very glad that you are with us. We hope that your deliberations will be pleasant and profitable to you, and we want you to stay just as long as you can. And I desire to say again that I am proud of the medical profession of this city, I am proud of them for the standing they have, for the manhood they represent. And besides that, fellows, I want to say that they are mighty good sports. Now, stay just as long as you can—say! Stay over till next week Wednesday and I guarantee that we will show you a time you will never forget. We want you to see the Rainbow boys and want them to see you. And incidentally I might say that it is the opening of the baseball season, too. You have gotten the people of Iowa in such a healthy condition that they can get along without your services for a week. We know that the new type of physician has declared war on the old grandmother that formerly existed in every neighborhood and thought she knew more than the doctor. The older rank and file of your profession used to tolerate her, but I have been around with physicians enough to find out that the poor old lady—God bless her,—with her herbs and berries and teas, has had to take a back seat. But now let her run the thing for a week and stay down and have a good time. And when the last day of this convention rolls around and you decide upon your next meeting place, I hope that you will have had such a good time that you will want to come back to Des Moines next year.

Dr. John H. Peck, Des Moines, then gave an address of welcome for the profession of the city, following which Dr. B. L. Eiker, Leon, responded on behalf of the visiting members.

Dr. Lawrence E. Kelley, Des Moines, read a paper on "Recognition and Treatment of Labor Injuries." Discussed by Drs. A. C. Page, Des Moines and W. E. Scott, Adel; Dr. Kelley closing the discussion.

Dr. Charles W. Sanders, Northwood, read a paper on "Gastric Ulcer from the Standpoint of the General Practitioner." The discussion was opened by Dr. J. T. Strawn, Des Moines.

Dr. John E. O'Keefe, Waterloo, read a paper on "Surgical Management of Gastric and Duodenal Ulcers." The discussion was opened by Dr. John E. Brinkman, Waterloo.

The two papers were then jointly discussed by Drs. D. C. Brockman, Ottumwa; C. E. Dakin, Mason City; William Jepson, Sioux City; J. W. Rowntree, Waterloo; J. F. Herrick, Ottumwa, and C. P. Howard, Iowa City; Dr. Sanders closing the discussion.

Dr. William C. Phillips, Clarinda, read a paper on "Diabetes." Discussed by Drs. Walter L. Bierring, Des Moines; C. F. Wahrer, Fort Madison, and E. W. Meis, Sioux City; Dr. Phillips closing the discussion.

#### Wednesday, May 7, Afternoon

The meeting was called to order at 1:30 o'clock by the President.

Major John L. Porter, Chicago, gave an address on

"The Reconstruction Problem for the Disabled Soldier" (by invitation).

Motion was made by Dr. Tom B. Throckmorton, as follows:

Inasmuch as Major Porter has so kindly appeared before our Society and presented to us this interesting and instructive paper on reconstruction work, and as it has not been the custom of this organization to discuss the papers of its guests, I move that, by a rising vote of thanks, we express to Major Porter an assurance of our sense of appreciation.

Motion seconded, and unanimously carried by rising vote.

Dr. Walter L. Bierring, Des Moines, read a paper on "Chronic Nephritis in the Young." Discussed by Drs. C. P. Howard, Iowa City; D. J. Glomset, Des Moines, and C. F. Wahrer, Fort Madison; Dr. Bierring closing the discussion.

On behalf of the Society, Dr. C. E. Ruth, Des Moines, presented to President Witte a gavel, stating that not only would it assist in maintaining order during the present session, but would remain a token of the love and esteem in which he was held by his colleagues. In a brief address the President thanked the Society for the memento.

It being necessary for the President to attend the meeting of the House of Delegates, Dr. J. F. Herrick, of Ottumwa presided during the remainder of the afternoon.

Papers comprising a symposium on "Intestinal Obstruction" were read, as follows:

"The Pathology of Intestinal Obstruction," M. J. Kenefick, Algona.

"The Diagnosis of Intestinal Obstruction," Wm. A. Rohlf, Waverly.

"The Surgical Treatment of Intestinal Obstruction," Wm. W. Bowen, Fort Dodge.

The papers of the Symposium were discussed by Drs. Geo. E. Decker, Davenport; F. W. Noble, Fort Madison; C. E. Ruth, Des Moines; Walter L. Bierring, Des Moines; O. C. Morrison, Carroll, and C. M. Wray, Iowa Falls; Drs. Kenefick, Rohlf and Bowen closing the discussion.

Dr. Oliver J. Fay, Des Moines, read a paper on "The Gall-Bladder from the Surgeon's Standpoint." Discussed by Drs. William Jepson, Sioux City; C. E. Ruth, Des Moines, and B. L. Eiker, Leon.

### Wednesday, May 7, Evening

At 6:30 o'clock the members of the Society with their wives and guests attended a banquet at Younker's Tea Room, at the conclusion of which Judge Martin J. Wade of Iowa City gave an address on "Americanization."

### Thursday, May 8, Morning

The meeting was called to order at 9:00 o'clock by the President.

The Oration in Medicine was given by Dr. James R. Guthrie, Dubuque.

Dr. Wilton W. McCarthy, Des Moines, gave a talk on "Carcinoma of the Rectum." Discussed by Drs. Lewis Schooler, Des Moines; Chas. H. Magee, Burlington; William Jepson, Sioux City; C. F. Wahrer, Fort Madison, and D. J. Glomset, Des Moines; Dr. McCarthy closing the discussion.

Dr. Herbert V. Scarborough, Oakdale, read a paper on "Rest in the Treatment of Pulmonary Tuberculosis." Discussed by Drs. J. W. Kime, Fort Dodge; John H. Peck, Des Moines; H. Edward Kirschner, Los Angeles, Cal., and A. J. Hobson, Hampton.

Dr. Arthur W. Erskine, Cedar Rapids, read a paper on "The Status of Roentgenology in the Diagnosis of Incipient Tuberculosis." Discussed by Drs. Thos. A. Burcham, Des Moines; J. W. Rowntree, Waterloo, and W. E. Scott, Adel.

Address of the Chairman of the Section on Medicine was then given by Dr. George W. Koch, Sioux City, his subject being, "Encephalitis Lethargica."

Dr. Edward M. Williams, Sioux City, read a paper on "Epilepsy." Discussed by Drs. Frank A. Ely, Des Moines, and Murdoch Bannister, Ottumwa.

### Thursday, May 8, Afternoon

The meeting was called to order at 1:30 o'clock by the President.

Captain Chas. A. Barlow, Ft. Des Moines, announced that the commanding officer at Ft. Des Moines, Col. Geo. S. Juenemann, desired to extend an invitation to the members of the Society to visit the Army Hospital at Fort Des Moines.

On behalf of the Society, the President extended the privileges of the floor to any colleagues in the army service who might be present and who wished to take part in the discussions and otherwise share in the activities of the Society.

Dr. Charles S. Grant, Iowa City, read a paper on "Statistics of Rejections and Their Causes in the recent draft." Discussed by Dr. W. W. Pearson, Des Moines.

Dr. Frank Parsons Norbury, late Acting Medical Director, National Committee for Mental Hygiene, Springfield, Ill., gave the Address on Medicine: "Mental Hygiene and the War."

The President: I am sure you will all agree with me that we are under many and deep obligations to Dr. Norbury for his presence and masterly presentation of this important subject.

A Symposium on "Influenza" was presented, made up of the following papers:

"Influenza in an Army Camp," Dr. E. T. Edgerly, Ottumwa.

"Bacteriology and Pathology of Influenza," Dr. Henry Albert, Iowa City.

"The Control of Influenza Epidemics," Dr. John H. Hamilton, Iowa City.

"The Relation of Influenza to Tuberculosis," Dr. John H. Peck, Des Moines.

"Surgical Complications of Influenza," Dr. Chas. J. Rowan, Iowa City.

The subject of "Influenza" was discussed by President Witte; C. F. Wahrer, Fort Madison; Captain F. A. Wells, Base Hospital, Camp Dodge; Chas. H. Magee, Burlington; J. F. Herrick, Ottumwa; F. F. Stults, Wiota; V. A. Farrell, Mason City, and W. T.

Peters, Burt; Drs. Edgerly, Albert, Hamilton and Rowan closing the discussion.

#### Thursday, May 8, Evening

The meeting was called to order at 8:00 o'clock by the President.

Calling Dr. J. T. Priestley, Des Moines, to preside, the President then read his address.

The chairman appointed the following named members to act as a special committee to consider the President's Address and to report upon it at the opening of the Friday morning session: Lewis Schooler, M. N. Voldeng and J. F. Herrick.

Announcement having been made that Dr. Merritt W. Ireland, surgeon-general of the United States, would arrive in Des Moines Friday morning for an inspection of the Fort Des Moines Hospital, as a committee to meet Dr. Ireland and to invite him to attend the meeting of the Society the President appointed Lieut.-Col. James F. Clarke chairman; Major C. E. Ruth and Major J. F. Herrick.

Dr. James Moores Ball, St. Louis, gave an address on: "Great Artists and Famous Anatomists," which was profusely illustrated with lantern slides.

Dr. Lee E. Shafer, Davenport, read a paper on "Transfusion as employed in an Evacuation Hospital in the Advanced Zone, A. E. F." Discussed by Dr. Frank J. Rohner, Iowa City, and Dr. Shafer in closing.

Dr. Nathaniel G. Alcock, Iowa City, as chairman of the Section on Surgery, gave an address on "The Diagnosis of Stone in the Upper Urinary Tract," illustrated by lantern slides.

#### Friday, May 9, Morning

The meeting was called to order at 9:00 o'clock in the absence of the President and Vice-President by Dr. C. B. Taylor, What Cheer, who invited Dr. S. A. Spilman, Ottumwa to preside.

Dr. Wm. H. Randleman, Davenport, read a paper on "Lung Abscess, Exophthalmic Goiter and Cholecystitis Following Tonsillectomy." Discussed by Drs. G. N. Ryan, Des Moines, and Lieut.-Col. Dean Lewis, Chicago, the essayist closing the discussion.

Dr. Frank E. Sampson, Creston, then gave the Oration in Surgery.

The House of Delegates having adjourned, President Witte resumed the chair, presiding until the close of the session.

Lieut.-Col. Dean Lewis, Chicago, gave the Address on Surgery, his subject being, "The Relations of Military to Civil Surgery."

Dr. J. F. Herrick moved that a rising vote of thanks be extended to Col. Lewis for this most interesting and instructive address. Motion seconded, and unanimously carried by rising vote.

On behalf of the committee appointed to meet and invite Surgeon-General Ireland to attend the session of the Society, Dr. Walter L. Biering made the following announcement:

Mr. President, Members of the Society:

Surgeon General Ireland, now on an inspection tour at Camp Dodge, has asked your committee to

express to you his very highest appreciation of your kind invitation to come before your body, but that unfortunately his official duties are keeping him so fully engaged this forenoon that he cannot be present. He has asked the committee to convey to you his very best wishes, and this also includes those of Col. Frank Billings who accompanies him on this inspection tour.

By unanimous consent, Mr. A. W. Hedrich, Boston, Secretary of the American Public Health Association, was invited to speak. In a brief address Mr. Hedrich set forth the proposed plan of coordinating local and state health organizations with the national body, and expressed the hope that the Iowa State Medical Society would take a leading part in promoting the movement.

Report of the transactions of the House of Delegates was then presented by the Secretary. Upon motion, unanimously carried, the report was accepted.

#### SUMMARY OF PROCEEDINGS OF THE HOUSE OF DELEGATES

The first meeting was held May 7 and was called to order at 3:45 p. m. Roll call showed the presence of fifty-six officers and delegates. The reports of the Secretary, Treasurer, Council and Trustees were presented and properly disposed of.

The Medico-legal Committee report was given by the chairman of the committee who asked that the committee's counsel, Mr. C. M. Dutcher, of Iowa City, be privileged to address the House on some of the problems arising as a result of the new insurance law passed by the last General Assembly. Following the acceptance of the Medico-legal Committee's report, a motion was made, seconded and carried, that the legal counsel, and the committee report, at the earliest moment, their recommendations as to the policy the Medico-legal Committee would advise to be pursued in the future. The House of Delegates then adjourned, after which the delegates met in caucuses and selected members for the Nominating Committee.

The Thursday morning meeting convened at 8:15 o'clock, there being officers and members present to the number of forty-seven. The minutes of the previous meeting were read and approved. The Medico-legal Committee recommended that the Society continue the handling of mal-practice cases as heretofore, leaving the question as to indemnity entirely alone at this time. The report of the committee was accepted.

The Friday morning meeting was called to order at 8:15 o'clock. Roll call showed the presence of officers and members present to the number of forty-two. The report of the Nominating Committee was received, after which the following officers and committee men were elected for the ensuing year. (See election of officers page 249.)

Des Moines was designated as the meeting place for the 1920 session—the date to be May 12, 13 and 14.

The registration of the session shows the presence of 564 physicians, 60 visiting ladies, and 32 guests, a total of 656.

The Secretary was authorized to purchase and present a suitable gavel to all the living ex-presidents who have never received such a token from the Iowa State Medical Society.

Tom B. Throckmorton,  
Secretary.

Dr. Chas. H. Magee, Burlington, read a paper on "Thyroidectomy." Discussed by Drs. D. C. Brockman, Ottumwa, and W. W. Bowen, Fort Dodge, Dr. Magee closing the discussion.

Paper on "Post-Operative Tetany," by Dr. Joseph H. McGready, Independence, in the absence of the essayist was read by Dr. Nathaniel G. Alcock, chairman of the Section on Surgery. (No discussion.)

The retiring President said: Gentlemen, we have come to the parting of the ways so far as our official relations are concerned, and I cannot leave this platform without expressing to you the deep and abiding gratitude which I feel for your kindness to me. And also more particularly I wish to emphasize that whatever merit this program has had, it is owing beyond everything else to the labors of the chairmen of the various sections. You are perhaps aware that we labored under extraordinary difficulties in making up the program, which should have been brought out last fall. Everything was in confusion on account of war conditions, then the influenza came down like a pall and disorganized whatever else had been started. So we were late in getting started. But the chairmen as well as my fellow officers on the various committees for scientific work labored early and late to produce the program. And I take this occasion to express to these fellow workers my personal sense of obligation at this time.

And now, amongst the very many pleasant experiences that have come to me in these days, not the least is the opportunity of inducting into office an old friend, a friend of my youth, a fellow classmate; in fact, he and I were the youngest of our class at the university, so many years ago now that I hesitate to name the year 1881. And the friendship of those early days has continued until the present, and beyond everything else it has been pleasing to me personally to be succeeded by Dr. William L. Allen, your new President.

President Allen: I thank you, gentlemen. I feel so grateful to you for this honor that I am going to show my gratitude by not keeping you very long. I want you simply to know that I appreciate it and appreciate it deeply.

As you all remember, just twelve months ago there was a dark cloud over the entire country, for the papers at that time published in big headlines the statement of General Haig that the Allies had their backs to the wall. At the meeting in Fort Dodge I remember that one doctor in particular had three stars on his badge, and many others doubtless had as many and perhaps more. We did not think very

much of it, we never thought that there was going to be any doubt as to the final results. Three weeks later we had news of our boys in action at Soissons and at Chateau Thierry. I wish that some time you might hear the tales of the nurse who told how she went in and out of Soissons and into Chateau Thierry, with the French soldiers straggling along the road. Throughout the war she had felt all the time that there could be but one end and that the end we all looked forward to. But suddenly one day, upon reaching Chateau Thierry, the news came that they were to evacuate. She burst into tears, the French soldiers threw away their guns, for the officers had said their bulletins were hopeless. As the French soldiers went down the road after marching out of Chateau Thierry they saw coming along the line some one who apparently was bringing news of some sort. They were sent to one side of the road, and they could hear in the distance our boys singing that great song that all of you sang at Fort Dodge last year, "Over There." And the nurse jumped out of the ambulance and ran into the road as eight thousand marines came marching by, and as they marched by singing they were ordered to simply hold the line, which they did.

I have been told some of the medical officers who were in that district at that time were from here, and Dr. Fairchild informs me that, while they did not all get over there, eight hundred of our members were in the service. And it seems to me that between now and the next meeting some arrangement should be made to recognize what they have done. Dr. Lewis has mentioned the work done by the surgeons. It has been said that the two thousand battalion surgeons who did the first aid work, did not have a gun or revolver with which to defend themselves, they did not have any clothes except what they had on their backs, they did not have blankets, and forty-six of them were killed outright. Those boys constituted the two thousand medical men of whom it has been said that they were there perhaps without any thought of danger and without any thought of sacrifice. But we can all realize now that it was a great sacrifice to all of them. Therefore I am sure that we all have come to feel that we should do something for those who have come back, and I believe that by next year you will have made up your minds to try in some way to recognize the wonderful things that they have done.

In the absence of the chairman, Dr. J. F. Herrick presented report of committee on the President's Address, as follows:

#### REPORT OF COMMITTEE ON PRESIDENT'S ADDRESS

The address of your worthy President has justified the judgment of those who selected him for the high office. In his masterly and scholarly way, he has attacked some of the most pressing problems of humankind; that is, eugenics, alcoholism and syphilis, all of which are inter-related, but call for individual consideration.

From time immemorial, the physician has been the custodian of health. Formerly his ministrations were chiefly directed to the relief of those already afflicted. Recently, however, with greater foresight and a wider knowledge, he has directed much of his efforts to prevention.

Our worthy President, with a broad comprehensive knowledge of mankind, has for years been an advocate of preventive efforts. This advocacy has culminated in the masterful address we have just listened to, in which he again renews his plea for a better race, a more perfect man. He calls attention to the inexorable working of the Mendelian law of heredity, and enters a plea for vigorous action on the part of the profession that the benefits of this knowledge of eugenics may not be lost to succeeding generations. With equal vigor, he attacks the problems of chronic alcoholic and syphilitic degenerations and the evils resulting therefrom.

We recommend that these matters be carefully considered by the profession of the state that some approach may be made to the ideals of our worthy President.

Your committee further recommends the adoption of the following resolution:

**"Resolved,** That a committee of three of this Society be appointed by the President for the study of these subjects, with instructions to report at the next annual meeting, and that the chairman of this committee be our retiring President.

Respectfully submitted,  
Lewis Schooler, Chairman,  
M. N. Voldeng,  
J. F. Herrick."

It was moved by Dr. Thomas F. Duhigg and seconded by Dr. Paul E. Garner that the report of the committee be adopted. The motion was carried.

Upon motion, the meeting adjourned.

Tom B. Throckmorton,  
Secretary.

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## Transactions of the House of Delegates Iowa State Medical Society

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Sixty-Eighth Annual Session, Des Moines, Iowa,  
May 7, 8, 9, 1919

### First Meeting—Wednesday Afternoon, May 7

The House of Delegates held its first meeting in the Rose Room at the Chamberlain, and was called to order by Dr. Max E. Witte, President, at 3:45 p. m.

Roll call showed the presence of 42 delegates and 14 officers, a total of 56.

It was moved that the question of delegates present without proper credentials be referred to the Committee on Constitution and By-laws, and action be reported by that committee. Seconded and carried.

The Secretary, Dr. Tom B. Throckmorton, read his annual report.

Owing to the incompleteness of the Secretary's report concerning the payment of the dues of members in the service, as reported by the county secretaries, it was moved that that portion of the Secretary's report be stricken from the record. Seconded and carried.

It was then moved that the report as modified be accepted and referred to the Finance Committee. Seconded and carried.

### REPORT OF SECRETARY

Mr. President and Members of the House of Delegates:

With the rapid subsidence of war activities and an endeavor on the part of the world to return to a peace basis, the work connected with the Secretary's office has largely assumed, during more recent time, the character of antebellum days. The past twelve months have been trying ones to all men, but in spite of trials and tribulations the Iowa State Medical Society has weathered the storm, with great credit to herself and honor to the profession at large.

The war work carried on in the Secretary's office during many of the past months was extremely heavy and trying, but the services rendered, not only to the War Committee of the Iowa State Medical Society but to the Volunteer Medical Service Corps as well, was of such character as helped to enable the medical profession of Iowa to husband its forces for the best possible service in assisting the government during its trying hours.

In spite of the fact that war activities held preferred claim over all other work, the necessity of holding together the members of our Society and of crystallizing their interest in organized medicine was not lost sight of, with the result that the majority of county secretaries responded nobly to the task of standing sponsors for their various local societies and were instrumental, in many instances, in bringing in affiliation with organized medicine, physicians, who in antebellum days, apparently gave little thought or heed to the value to be derived from membership in such an institution as the Iowa State Medical Society.

The membership of the Society compares very favorably with that of former years. In 1915, there was a total of 2133 members; in 1916, 2200 members; in 1917, 2253 members; and the past year 2185 members. The loss of 68 members during the year 1918 can be accounted for, partly at least, by the lack of response on the part of some county societies to pay the dues of their war members. That last year's loss in membership has been retrieved during this year is evident from the manner in which many of the county societies have volunteered the payment of dues for war members and from the fact that to date dues have been received from 1943 members, thus showing an increase of 71 in membership for the corresponding period of time last year.

At the Fort Dodge session, it will be recalled, the consensus of opinion there expressed was to the ef-

fect that each component county medical society take on itself the question of the payment of the dues of war members. A favorable response has been received from practically one-third of all the county societies, entailing the payment of the 1919 dues for 165 war members.

This report would not be complete and I would indeed be grossly derelict in my duty if I did not say a word of commendation for the secretaries of the component county medical societies. In spite of the inroads in the ranks of our profession on account of the World War lessening the number and limiting the time of those remaining at home, as well as the Herculean task of rendering service to a plague stricken populace under the most unfavorable circumstances during recent months, secretarial reports have been received from all but one county society in the state. That the State Society owes much to the faithfulness of such men, needs, I feel, no further comment.

### FINANCIAL STATEMENT

Monies received and disposition of the amount for the year May 1, 1918 to April 30, 1919:

#### Receipts

Balance on hand May 1, 1918.....	\$ 1,234.57
Dues, 1915 .....	4.00
Dues, 1916 .....	5.00
Dues, 1917 .....	20.00
Dues, 1918 .....	1,755.00
Dues, 1919 .....	9,127.00
	<hr/>
Advertising .....	\$ 4,927.40
Reprints .....	350.53
Subscriptions .....	49.50
Sales .....	1.90
Arrangement Committee .....	33.30
	<hr/>
Total .....	\$17,508.20

#### Disbursements

Commission to Advertising Bureau, Discount and Exchange....	\$ 620.19
Thos. F. Duhigg, Treasurer.....	16,888.01
	<hr/>
Total .....	\$17,508.20

The following orders have been issued during the year:

No.	Amount
858 Dr. Lewis Schooler, postage and expense medico-legal committee.....	\$ 25.00
859 Dutcher & Davis, attorneys, Iowa City, medico-legal, Jan., Feb., Mch.....	946.44
860 McNamara & Kenworthy, office supplies, Secretary .....	2.45
861 Luella Nash, Des Moines, stenographic work .....	2.30
862 Eva Seevers, Des Moines, office work....	6.25
863 J. H. Welch Prtg. Co., April Journal and reprints .....	394.40

No.	Amount
864 Register & Tribune, cuts for April issue and program.....	8.95
865 D. E. Moon Prtg. Co., printing for Treasurer .....	3.60
866 Iowa Press Clipping Bureau, news service, Feb., Mch. and April.....	11.50
867 Tom B. Throckmorton, Sec'y, salary Feb. 15 to May 15 and advertising commission .....	271.44
868 Tom B. Throckmorton, Sec'y, telegrams, telephones, postage, mailing Journals, expense trip scientific committee, etc. ....	94.22
869 Manee Novelty Metal Co., Malden, Mass., 1918 badges.....	36.26
870 J. H. Welch Prtg. Co., May Journals, reprints and 1918 programs.....	343.10
871 Bankers Cabinet & Supply Co., stationery, sec'y's office.....	28.00
872 Iowa Press Clipping Bureau, May service .....	5.00
873 C. L. Dahlberg Co., letters to county secretaries and delinquents.....	4.70
874 Thos. F. Duhigg, Treas. salary May 1, 1917 to April 30, 1918, \$150, postage \$1.97, expense scientific committee, \$7.44 .....	159.41
875 Register & Tribune Company, cuts for Journal .....	8.68
876 D. S. Fairchild, editor's salary April, May, June, \$375; stenographer, \$10; Journal postage, \$1.27; medico-legal postage, \$1.72 .....	387.95
877 J. H. Welch Prtg. Co., June Jour. reprints, binding Journals.....	333.45
878 Register & Tribune Co., half tones for Journal .....	25.87
879 Miss Adelaide Folsom, reporting 1918 session .....	135.00
880 J. H. Welch Prtg. Co., July Journal, reprints .....	350.05
881 McNamara & Kenworthy, supplies Secretary's office .....	1.60
882 Iowa Press Clipping Bureau, service June and July.....	10.00
883 Upham Bros., renewal bonds for Secretary and Treasurer.....	50.00
884 Bankers Cabinet & Supply Co., supplies for Journal .....	2.25
885 Dr. F. X. Cretzmeyer, Sec'y Pala Alto Co., Med. Soc., refund 1918 dues Dr. James Woodbridge, duplicate payment .....	5.00
886 Tom B. Throckmorton, Sec'y salary May 15 to August 15, \$100.00, advertising commission May 1 to May 15, 1918, \$13.28 .....	113.28
887 Tom B. Throckmorton, Sec'y, rent, office assistant, May, June and July mailing Jour., telegrams, telephone, postage, city delivery Jour.....	368.40
888 Ira W. Jones, attorney Clear Lake, medico-legal service .....	175.00

No.	Amount	No.	Amount
889 Dutcher & Davis, attorneys, medico-legal service, April, May, June.....	195.57	917 Dutcher & Davis, attorneys, medico-legal service, July, Aug., Sept.....	324.25
890 T. E. Diamond, attorney, Sheldon, medico-legal service .....	500.00	918 Tom B. Throckmorton, Sec'y, salary Aug. 15 to Nov. 15.....	100.00
891 W. B. Small, Waterloo, expense attending August meeting trustees.....	9.80	919 American Medical Association, reports for membership, County Medical Societies .....	6.50
892 T. E. Powers, Clarinda, expense attending August meeting trustees.....	13.00	920 American Medical Association, 2300 1919 membership cards.....	8.05
893 J. H. Welch Prtg. Co., August Journal and reprints .....	310.70	921 J. H. Welch Prtg. Co., Dec. Jour., reprints .....	347.05
894 Register-Tribune Co., half tones, Sept. and Oct. Journal.....	12.61	922 D. S. Fairchild, editor's salary, Oct., Nov., Dec., \$375; stenographer, \$30; Jour. postage, \$2.88; medico-legal, 30c	408.18
895 D. S. Fairchild, editor's salary July, Aug., Sept., \$375; stenographer, \$30; Jour. postage, 81c; medico-legal, \$1.05	406.86	923 Tom B. Throckmorton, Sec'y, office assistant salary, Nov., Dec., rent, mailing Jour., postage, city delivery, telephone	248.51
896 Dr. Joseph M. Aiken, Omaha, subs. Nebraska Medical Journal.....	2.00	924 Iowa Press Clipping Bureau, Nov., Dec., Jan. service.....	15.00
897 Iowa Press Clipping Bureau, Aug. and Sept. service .....	10.00	925 Register-Tribune Co., half tones, Feb. Journal .....	3.28
898 J. N. Warren, Sioux City, expense as President 1917-18 .....	47.24	926 McNamara & Kenworthy, office supplies, Secretary .....	2.50
899 J. H. Welch Prtg. Co., Sept. Jour., reprints .....	324.35	927 Bankers Cabinet Supply, Jour. statements, reprints, paper.....	11.75
900 New York Medical Journal, New York, subscription to Journal.....	2.00	928 J. H. Welch Prtg. Co., Jan. Journals, reprints .....	325.35
901 J. R. Bruce, business manager Minnesota Medicine, sub. to Journal.....	2.00	929 Dutcher & Davis, attorneys, medico-legal service, Oct., Nov., Dec.....	300.00
902 Frank Y. Gilbert, managing editor Maine Med. Jour. sub. to Journal.....	2.00	930 Tom B. Throckmorton, Sec'y, office assistant, rent, mailing Jour., telephone, telegrams, postage, salary, Nov. 15 to Feb. 15 .....	263.23
903 I. C. Chase, editor pro-tem Texas State Medical sub. to Journal.....	2.00	931 T. E. Powers, Clarinda, expense attending Feb. meeting trustees.....	13.51
904 J. H. Welch Prtg. Co., October Journal and reprints .....	317.50	932 W. B. Small, Waterloo, expense attending Feb. meeting trustees.....	8.89
905 C. L. Dahlberg Co., printing letters to county secretaries .....	2.75	933 J. W. Cokenower, expense Nov. and Feb., meeting trustees.....	10.00
906 Bankers Cabinet Supply, 1919 membership receipts and envelopes, reprint orders, Journal stationery.....	32.70	934 Register-Tribune Co., cuts for Journal March and April.....	35.01
907 McNamara & Kenworthy, office supplies, Secretary .....	1.55	935 Iowa Press Clipping Bureau, service February .....	5.00
908 Iowa Press Clipping Bureau, October service .....	5.00	936 J. H. Welch Prtg. Co., Feb. Journal, reprints .....	334.90
909 American Medical Association, 1918 directory .....	10.00	937 D. S. Fairchild, editor, salary, Jan., Feb., March, \$375; stenographer, \$30; Jour. postage, \$2.63; medico-legal postage, \$1.13 .....	408.76
910 Koch Bros., Des Moines, 1919 record book of members and advertising record book .....	4.85	938 Tom B. Throckmorton, Sec'y, office assistant, Feb. and Mch., rent Mch. and April, mailing Jour., postage, telephone, city delivery .....	242.37
911 J. H. Welch Prtg. Co., Nov. Jour., reprints, 1919 wrappers.....	370.85	939 Register-Tribune Co., zinc etching for program .....	1.89
912 August A. Strasser, editor New Jersey Med. Journal, subscription to Journal....	2.00	940 Central Engraving Co., half tone, April	4.50
913 Frank W. Chambers, attorney, Mason City, medico-legal service.....	125.00	941 Dutcher & Davis, attorneys, medico-legal service, Jan., Feb., Mch.....	369.37
914 John McCook, attorney, Cresco medico-legal service .....	75.00	942 Iowa Press Clipping Bureau, news service, March .....	5.00
915 Tom B. Throckmorton, Sec'y, office assistant, Aug., Sept. and Oct., rent, telephone, mailing Journal, city delivery, postage, express.....	373.84		
916 W. B. Small, Waterloo, expense November meeting trustees.....	10.05		

No.		Amount
943	Bankers Printing Co., reports for coun- cilors .....	2.75
944	J. H. Welch Prtg. Co., Mch. Jour., re- prints, binding 2 volumes, 1918 Jour.....	349.25

JOURNAL STATEMENT

January 1, 1918 to December 31, 1918

Income

Advertising .....	\$4,616.24	
Reprints .....	351.49	
Subscriptions, non-members .....	44.75	
Sales .....	3.60	
Subscriptions, 2,185 members.....	2,185.00	
Total .....	\$7,201.08	
Honorarium from Cooperative Medical Adv. Bureau.....	72.50	\$7,273.58

Expense

Printing—		
8-64 page Journals.....	\$2,348.15	
1-68 page Journal.....	312.40	
2-72 page Journals.....	654.70	
1-80 page Journal.....	367.25	
Total .....	\$3,682.50	
Engravings .....	93.27	
Reprints .....	265.90	
Wrappers for 1918.....	58.35	
Commission Advertising Bureau and discount .....	601.00	
Commission business manager January 1, 1918 to May 15, 1918	190.13	
Office assistant salary June, 1918 to December 1, 1918.....	290.00	
Rent June 1, 1918 to Dec. 1, 1918....	53.00	
Office telephone .....	11.00	
News service .....	60.00	
Mail Journal and city delivery.....	121.00	
Journal office supplies.....	31.15	
Journal postage .....	57.59	
Editor's salary .....	1,500.00	
Deduction for advertising for 1917 advanced by Advertising Bu- reau, not paid.....	16.68	
Total .....	\$7,031.57	
Profit .....	242.01	\$7,273.58

Respectfully submitted,  
Tom B. Throckmorton,  
Secretary.

The Treasurer, Dr. Thos. F. Duhigg, presented his annual report.. Motion was made that the report be accepted and referred to the Finance Committee. Seconded and carried.

REPORT OF TREASURER

Statement of receipts, disbursements and assets of

the Iowa State Medical Society April 30, 1918 to May 1, 1919, submitted by the Treasurer.

Balance Sheet

Balance on hand 1918.....	\$14,435.37	
Received from Secretary.....	16,888.01	
Interest on \$2000 Liberty Bond	82.50	
Interest on \$8000 Liberty Bond	161.60	
Interest on time deposits.....	312.65	
Total receipts to April 30, 1919 .....	\$31,880.13	
Expended as per orders here- with attached .....		\$11,603.25
Assets		
Liberty Bond, fourth issue.....	\$ 8,000.00	
Liberty Bond, second converted	2,000.00	
On time deposit, People's Sav- ings Bank .....	8,683.54	
On deposit subject to check.....	1,593.34	
Total on hand April 30, 1919		\$20,276.88
Grand total .....		\$31,880.13

PEOPLE'S SAVINGS BANK

Des Moines, Iowa, May 3, 1919.

This is to certify that the Iowa State Medical So- ciety had on deposit at the close of business April 30, 1919, \$1,593.34 on checking account and \$8,683.54 on savings account. They also had \$10,000 of Liberty Bonds deposited in our safe keeping department which are as follows:

Fourth 4¼ per cent.....	8,000.00
Second converted 4¼ per cent.....	\$2,000.00

PEOPLE'S SAVINGS BANK,

Wray Bertholf,  
Assistant Cashier.

STATE OF IOWA, County of Polk, ss.

Subscribed and sworn to before me this third day of May, A. D., 1919.

C. D. May,  
Notary Public.

Checks were issued as follows:

Check	No.	1918	Amount
247	4- 6	Mrs. E. H. King, refund of dues for Dr. King.....	\$ 3.00
248	5- 6	Welch Prtg. Co., Mch. Jour. and reprints .....	335.85
249	5-16	Lewis Schooler, M.D., expenses medico-legal committee .....	25.00
250	5-16	Dutcher & Davis, medico-legal services Jan. to Mch.....	946.44
251	5-16	McNamara & Kenworthy, Sec- retary's office supplies.....	2.45
252	5-16	Luella Nash, stenographic ser- vices .....	2.30
253	5-16	Eva Seevers, office work.....	6.25
254	5-16	Welch Prtg. Co., April Jour. and reprints .....	394.40

Check			Check		
No.	1918	Amount	No.	1918	Amount
255	5-16	Register & Tribune, engraving for programs .....	283	9- 3	Dr. T. E. Powers, exp. trustees meeting August .....
		8.95			13.00
256	5-16	Moon Prtg. Co., envelopes for Treasurer .....	284	10- 2	Register & Tribune, cuts September and October issue.....
		3.60			12.61
257	5-16	Iowa Press Clipping Bureau, News service Feb., Mch. and April .....	285	10- 2	Welch Prtg. Co., August Jour. and reprints .....
		11.50			310.70
258	5-16	Dr. T. B. Throckmorton, salary and commissions .....	286	10- 2	Dr. D. S. Fairchild, salary and postage .....
		271.44			406.86
259	5-16	Dr. T. B. Throckmorton, mailing Jour. and telegrams.....	287	10-15	Welch Prtg. Co., Sept. Jour. and reprints .....
		94.22			324.35
260	5-23	Mance Novelty Co., badges 1918 session .....	288	10-15	Iowa Press Clipping Bureau, news service, August and Sept.
		36.26			10.00
261	6-22	Welch Prtg. Co., June Jour. and reprints .....	289	10-15	Dr. J. N. Warren, Pres. expenses Des Moines and Fort Dodge .....
		343.10			47.24
262	7- 3	C. L. Dahlberg & Co., form letters .....	290	10-31	Nebraska Medical Journal, subscription 1918-1919 .....
		4.70			2.00
263	7- 3	Iowa Press Clipping Bureau, news service for May.....	291	10-31	Dr. Floyd M. Crandall, subscription New York Medical Journal .....
		5.00			2.00
264	7- 3	Bankers Cabinet & Supply Co., stationery .....	292	10-31	J. R. Bruce, subscription Minnesota Medical Journal.....
		28.00			2.00
265	7- 3	Thos. F. Duhigg, Treas. salary, postage, railroad fare.....	293	10-31	Dr. F. Y. Gilbert, subscription Maine Medical Journal.....
		159.41			2.00
266	7-10	Register & Tribune, cuts July Journal .....	294	10-31	J. C. Chase, subscription Texas Medical Journal .....
		8.68			2.00
267	7-23	Dr. D. S. Fairchild, salary and stamps .....	295	11-15	Welch Prtg. Co., October Jour. and reprints .....
		387.99			317.50
268	7-23	Welch Prtg. Co., July Jour. and reprints .....	296	00-00	Void .....
		333.45			.....
269	8- 6	Register & Tribune, half tones August issue .....	297	12- 4	C. L. Dahlberg Co., form letters .....
		25.87			2.75
270	8-12	Welch Prtg. Co., August Jour. and reprints .....	298	12- 4	Bankers Cabinet & Supply Co., supplies Secretary's office.....
		350.05			32.70
271	8-12	Adelaide Folsom, reporting 1918 session .....	299	12- 4	McNamara & Kenworthy, supplies Secretary's office.....
		135.00			1.55
272	9- 3	McNamara & Kenworthy, supplies Secretary's office.....	300	12- 4	Iowa Press Clipping Bureau, news service, October.....
		1.60			5.00
273	9- 3	Iowa Press Clipping Bureau, news service, June and July.....	301	12- 4	American Medical Association 1918 directory .....
		10.00			10.00
274	9- 3	Upham Brothers, renewal bond Secretary and Treasurer.....	302	12- 4	Koch Brothers, office supplies .....
		50.00			4.85
275	9- 3	Bankers Cabinet & Supply Co., statements for Journal.....	303	12- 4	Welch Prtg. Co., Nov. Jour. and reprints .....
		2.25			370.85
276	9- 3	Dr. F. S. Cretzmeyer, refund 1918 dues .....	304	12- 4	Dr. Strasser, subscription New Jersey Medical Journal.....
		5.00			2.00
277	9- 3	Dr. T. B. Throckmorton, salary and commissions .....	305	12- 4	F. W. Chambers, attorney, medico-legal service .....
		113.28			125.00
278	9- 3	Dr. T. B. Throckmorton, rental, stenographer's salary 3 months; postage, mailing Journal, telephone, etc. ....	306	12- 4	John McCook, attorney, medico-legal service .....
		368.40			75.00
279	9- 3	Ira W. Jones, attorney, medico-legal services .....	307	12- 4	Dr. T. B. Throckmorton, salary, office ass't 3 months rent, postage, telephone, etc.....
		175.00			373.84
280	9- 3	Dutcher & Davis, attorneys, medico-legal services .....	308	12- 4	Dr. W. B. Small, expense trustees meeting .....
		195.57			10.05
281	9- 3	T. E. Diamond, attorney, medico-legal services .....	309	00-00	Void .....
		500.00			.....
282	9- 3	Dr. Wm. B. Small, expense trustees meeting, August.....	310	00-00	Void .....
		9.80			.....
			311	12- 4	Dutcher & Davis, attorneys, medico-legal fees .....
					324.25
			312	12- 4	Dr. T. B. Throckmorton, salary August 15th to Nov. 15th.....
					100.00
			313	00-00	Void .....
					.....

Check No.	1918		Amount
314	12-14	American Medical Association, membership blanks .....	6.50
315	12-27	American Medical Association, 1919 membership cards.....	8.05
No.	1919		Amount
316	1- 7	Welch Prtg. Co., Dec. Jour. and reprints .....	347.05
317	1- 7	Dr. D. S. Fairchild, salary and postage .....	408.18
318	1-17	Dr. T. B. Throckmorton, salary, office assistant 2 months, rent, mailing Journal, telephone, postage, etc. ....	248.51
319	2-11	Iowa Press Clipping Bureau, news service, Nov., Dec., Jan....	15.00
320	2-11	Register & Tribune, cut, February issue .....	3.28
321	2-25	McNamara & Kenworthy, office supplies .....	2.50
322	2-25	Bankers Cabinet & Supply, reprints and stationery.....	11.75
323	2-25	Welch Prtg. Co., Feb. Jour. and reprints .....	325.35
324	2-25	Dutcher & Davis, attorneys, medico-legal service .....	300.00
325	2-25	Dr. T. B. Throckmorton, salary Nov. 15 to February 15, office ass't, telephone, mailing Journal, postage, etc.....	263.23
326	2-25	Dr. T. E. Powers, expense trustees meeting .....	13.51
327	2-25	Dr. W. B. Small, expense trustees meeting .....	8.89
328	2-25	Dr. J. W. Cokenower, expense trustees meeting .....	10.00
329	3-13	Register & Tribune, half tones and zinc etchings.....	35.01
330	3-21	Welch Prtg. Co., Feb. Jour.....	334.90
331	3-21	Iowa Press Clipping Bureau, news service, February.....	5.00
332	4-15	Central Engraving Co., Half tones, April issue.....	4.50
333	4-15	Register & Tribune, zinc etchings .....	*1.89
334	4-16	D. S. Fairchild, M.D., salary, Jan., Feb., Mch., postage.....	408.76
335	4-17	Dr. T. B. Throckmorton, salary, office ass't 2 months; postage, mailing Journal, telephone, rent, etc. ....	242.37
336	4-19	Iowa Press Clipping Bureau, news service March.....	5.00
337	4-19	Bankers Printing Co., supplies Secretary's office .....	2.75
338	4-21	Welch Prtg. Co., March Jour. and reprints .....	349.25
Total .....			\$11,605.14
*Check No. 333 dated April 15, 1919, for.....			1.89

Issued on Order No. 939 still uncashed  
May 1, 1919.

Total .....\$11,603.25

Respectfully submitted,  
Thos. F. Duhigg, Treasurer.

The report of the Council was given by Dr. G. C. Moorhead, Secretary, as follows:

#### REPORT OF COUNCIL

##### For the Year Ending May 7, 1919

This report covers nine districts and is incomplete in all but one, the eleventh.

In the area covered there are 2098 physicians; of these there are 1454 now members of our society or 69 per cent. as compared with 70 per cent. last year and 78 per cent. the year before.

Twenty-three deaths are reported, which are four more than last year.

Interest in society work is varied, two counties, Polk and Boone report interest as excellent; 29 per cent. report good; 26 per cent. fair; and 40 per cent. poor. During the influenza epidemic a good deal was said about the people of the state not receiving proper medical attention on account of the shortage of physicians and for this reason, I included in the questionnaire this question: Have the people of your county suffered from lack of medical attention due to a shortage of physicians?

Of the sixty-seven replies received, fifty-four reported no, and thirteen reported yes, during November and December.

I feel that no more heroic work was ever done by any body of men than was performed by the physicians of Iowa during these two months and could the casualties be known, they would rank with those of the Argonne.

G. C. Moorehead,  
Sec'y of Council.

It was moved that the report be accepted. Seconded and carried.

Dr. J. W. Cokenower, Chairman of the Board of Trustees, presented the annual report of the trustees.

#### REPORT OF TRUSTEES

The splendid reports just read by our worthy Secretary and Treasurer are self-explanatory and need no further explanation from the Board of Trustees. They show our Society's finances to be in good condition. Our Journal's scientific, editorial and local pages are filled with interesting reading matter by our efficient editor, and the business and advertising management speaks for itself in the annual report.

Your board added \$8000, Fourth Liberty Bonds to the \$2000 our Society had, so we now have \$10,000 Government Bonds, and our Treasurer's report shows we have about that amount in cash.

It occurred to the board that a comparative statement of receipts and disbursements of our Society,

for the past three years, might be interesting from a business standpoint, especially so, considering the commercial condition of affairs of the country during this time; hence the following:

**April, 1916 to April, 1917**

Membership income .....	\$11,055.00	
Advertising, interest, etc.....	5,349.00	\$16,404.00
Medico-legal expense .....	\$ 2,365.00	
Journal, salaries, etc.....	12,219.00	\$14,584.00
Total gain for the year.....		\$ 1,820.00

**April, 1917 to April, 1918**

Membership income .....	\$10,251.00	
Advertising, interest, etc.....	5,669.00	\$15,920.00
Medico-legal expense .....	\$ 3,505.00	
Journal, salaries, etc.....	8,847.00	\$12,352.00
Total gain for the year.....		\$ 3,568.00

**April, 1918 to April, 1919**

Membership income .....	\$10,911.00	
Advertising, interest, etc.....	5,979.00	\$16,890.00
Medico-legal expense .....	\$ 2,093.00	
Journal, salaries, etc.....	9,216.00	\$11,309.00
Total gain for the year.....		\$ 5,581.00

The board suggests that, inasmuch, as the annual dues from members and increased advertising, has put our Society in good financial condition, that the annual dues remain the same, as no scientific or business organization can exist without sufficient funds to meet its obligations.

J. W. Cokenower, Chrm.,  
W. B. Small,  
T. E. Powers,  
Board of Trustees.

It was moved and seconded that the report be accepted. Carried.

The report of the Medico-legal Committee was presented by Dr. D. S. Fairchild, Chairman.

**REPORT OF MEDICO-LEGAL COMMITTEE**

At the request of Dr. Fairchild, Mr. C. M. Dutcher, of Iowa City, medico-legal counsel for the Society, was invited to present the phases of the insurance problem in its relation to the new law passed by the last General Assembly. Mr. Dutcher spoke as follows:

The last General Assembly provided for the organization of corporations for the purpose of protecting physicians, druggists, dentists and graduate nurses, licensed to practice their professions in the State of Iowa, against loss by reason of actions at law on account of alleged error, mistake, negligence or carelessness in the practice of their respective

callings. Theretofore such insurance was not authorized under the laws of the State of Iowa.

The act was passed, so far as I can learn, at the solicitation of foreign corporations engaged in the insurance business in other states who were anxious to get into the Iowa field and persons interested in the organization of such companies in Iowa.

The law now authorizes such business by stock companies and by mutual companies. Stock companies are organized with a view of profit to the stockholders and are purely a commercial enterprise; mutual companies are not organized for profit but for mutual protection, except insofar as the persons promoting such mutual companies hope to be compensated for their services as officers and directors.

The effect of this new legislation will probably be to increase suits against physicians for malpractice, because,

(1) It tends to eliminate any element of sentiment;

(2) It makes every physician good on execution to the extent of his policy, thus removing the discouragement to litigation based on the fact that the defendant may have no property against which the judgment can be enforced.

In my judgment, the tendency of the profession will be to seek indemnity against damages, and the question for the profession to consider is whether it prefers to foster and support a mutual company which is officered by members of the profession, thus guarantying that the primary object of the company is the welfare of the profession, or whether the indemnity shall be written by commercial companies whose primary object is financial gain to the stockholders or officers.

There is nothing in the new legislation affecting the legality of the present plan of the Society in furnishing the services of counsel to defend actions for damages, but after an examination of the question and after a conference with the state insurance department, I am convinced that it would be illegal for the Society to incorporate in the present plan the additional feature of indemnity against damages and costs.

The members of the profession must, therefore, either,

First, forego indemnity against judgments for damages and costs, or

Second, seek such indemnity in commercial companies, or

Third, encourage and foster a company organized and controlled and officered by physicians and surgeons.

The advantages of the latter alternative are,

First, That the policy of the company will be dictated solely by the members of the profession;

Second, Such company would have sufficient insurance of this class to justify the employment of counsel experienced in the defense of these cases;

Third, The question as to whether a case should be settled or not will depend on the judgment of the members of your profession who have the good of

the profession at heart and not by a board of directors composed of laymen primarily interested in financial returns.

Fourth, Greatly decreased cost of the indemnity to the members.

I would, therefore, recommend for your consideration that the Society pass such proper resolution as will insure that a representative body of its members examine into the feasibility of the organization of a mutual company under the laws of Iowa and that such company, if organized, shall have the moral support of the Society, and that its future management and control shall be in the hands of the members of the Society so far as such control may be legally exercised.

I realize that the organization of such a company will require a large amount of effort upon the part of a chosen few and that in the very nature of things such effort cannot be financially rewarded, but I believe that a thorough canvass of the question would convince the members of the profession that the organization of such a company to be encouraged and fostered by this Society would be an advantage to the profession.

Should such recommendation be followed, I would suggest that the body so chosen should be authorized to include dentists, nurses and druggists, if deemed advisable.

Respectfully submitted,  
Charles M. Dutcher.

It was moved that the report of the Medico-legal Committee be accepted. Seconded and carried.

A motion was made that the report of Mr. C. M. Dutcher, medico-legal counsel, be accepted and referred to the Medico-legal Committee, and later to be reported by that committee with recommendation to the House of Delegates. Seconded and carried.

REPORT OF MALPRACTICE CASES, 1918-1919  
Iowa City, Iowa, April 30, 1919.

To the Iowa State Medical Society:

Gentlemen—We herewith submit our report corresponding to reports heretofore made.

Fourteen new cases have been begun during the last year, and during the year we have disposed of fourteen cases, which leaves twenty-nine cases pending, which is the same number that were pending at the date of our last report.

Comparatively few cases were tried last year on account of the interference by the war with the work of the courts and attorneys. Of the cases pending, a large part of them have been pending for a great many years and doubtless very few of them will be tried.

It is interesting to note that while heretofore Polk county has had from twelve to thirteen cases all the time, there is no case pending there now. Woodbury county now has more cases pending than any other county in the state, there being six cases pending in that county.

We have pursued the course in the last year of not bringing any cases to trial ourselves, it having been

our experience that many of the cases die a natural death if the initiative is left to the plaintiff.

Respectfully submitted,  
Dutcher, Davis & Hambrecht.

CONDENSED REPORT OF CASES AGAINST  
MEMBERS OF THE IOWA STATE MEDICAL SOCIETY, 1918-1919

To Dr. D. S. Fairchild, Dr. H. B. Jennings, and Dr. Lewis Schooler, Medical Defense Committee.  
Gentlemen:

We have submitted a full report upon all cases pending at the date of our last report and also of cases commenced since that date. The following is a summary of certain particulars in all cases commenced since the establishment of the Medical Defense Committee of the Society.

Cases commenced since organization of department .....	162
Cases commenced prior to the report of 1909.....	15
Cases commenced during 1909-1910.....	13
Cases commenced during 1910-1911.....	10
Cases commenced during 1911-1912.....	14
Cases commenced during 1912-1913.....	13
Cases commenced during 1913-1914.....	10
Cases commenced during 1914-1915.....	24
Cases commenced during 1915-1916.....	19
Cases commenced during 1916-1917.....	17
Cases commenced during 1917-1918.....	13
Cases commenced during 1918-1919.....	14
Cases pending at date of 1909 report.....	7
Cases pending at date of 1910 report.....	10
Cases pending at date of 1911 report.....	14
Cases pending at date of 1912 report.....	25
Cases pending at date of 1913 report.....	26
Cases pending at date of 1914 report.....	21
Cases pending at date of 1915 report.....	28
Cases pending at date of 1916 report.....	33
Cases pending at date of 1917 report.....	33
Cases pending at date of 1918 report.....	29
Cases now pending.....	29
Total cases disposed of.....	138

Nature of Cases

Malpractice in removing seed wart.....	1
Malpractice in not discovering and uniting severed ligaments of the wrist.....	1
Alleged assault .....	2
Removal of cancer of the hand.....	1
Conspiracy to have plaintiff declared insane.....	2
Fracture of arm.....	24
Fracture of leg or femur.....	42
Appendicitis—sponge case .....	1
Operation for kidney—sponge case.....	1
Appendicitis—malpractice in operation.....	3
Appendicitis—exploratory opening.....	1
Childbirth, alleged failure to attend after alleged agreement to do so; child died, (separate action by father and mother).....	2
Libel for testifying patient was insane.....	1
Hand crushed, alleged improper treatment.....	1
Hand lacerated, alleged improper treatment.....	1

Ear, alleged improper treatment.....	1
Eye, alleged improper treatment.....	1
Infection, childbirth .....	2
Medical treatment of child.....	1
Abortion, improper after-treatment.....	3
Abortion, without justification.....	2
Improper treatment of nail puncture in foot.....	1
Alleged removal of wrong kidney.....	1
Stomach trouble, alleged improper treatment and failure to treat.....	1
Anesthetic, death under.....	1
Improper diagnosis of diphtheria.....	1
Improper diagnosis of broken ribs.....	1
Removal of uterus, alleged negligent incision of the bladder .....	1
X-ray burn .....	3
Infection following amputation.....	1
Alleged improper treatment of scalp.....	1
Removal of adenoids.....	2
Alleged improper abdominal incision.....	3
Failure to administer serum, patient died of lock jaw .....	1
Fracture of collar bone.....	2
Willful insertion of instrument, producing abortion .....	1
Operation for pregnancy of fallopian tube.....	1
Negligence in administration of poison, causing death .....	1
Improper treatment of wound in leg from kick of horse .....	1
Alleged negligence in communicating erysipelas to woman in childbirth.....	1
Negligence in suffering patient mentally delinquent to jump out of unguarded window in private sanitorium .....	1
Negligent amputation of finger.....	3
Negligence in attending cut severing cords of hand .....	1
Wrongfully administering morphine.....	1
Communicating smallpox to patient in hospital .....	1
Fracture of lower jaw.....	1
Dislocation of knee.....	1
Cancer of stomach.....	1
Draining pelvic abscess.....	1
Operation for tonsils without consent.....	2
Negligence in removing button from child's throat .....	1
Hot water bottle burn.....	1
Failure to discover fractured vertabrae.....	1
Improper treatment of vaginal infection.....	2
Improper treatment of inflammatory rheumatism .....	2
Negligent removal of tonsils.....	3
Negligent treatment of gun shot wound.....	1
Negligent treatment of abscess of bladder.....	2
Negligent treatment of abscess under arm.....	1
Wrong diagnosis of sprain of ankle.....	1
Exposing patient to scarlet fever by wrong diagnosis .....	1
Improper treatment of insect bites.....	1
Negligent treatment of fractured finger.....	1
Improper diagnosis of fractured foot.....	1

Paralysis of facial nerve in mastoid operation.....	1
Failure to diagnose abscess of kidney.....	1
Improper treatment of ligaments of wrist.....	1
Total amount of damages claimed in all cases to date.....	\$1,669,398.00
Judgments recovered against members....	4
Aggregate amount of judgments.....	\$ 5,275.00
Consultation on cases threatened in which no proceedings were had.....	75

Dutcher, Davis & Hambrecht.  
Iowa City, Iowa, April 30, 1919.

The report of the Committee on Health and Public Instruction was not ready for presentation at this time.  
No report from Committee on Constitution and By-Laws.  
The report of the Committee on Conservation of Vision and Hearing was read by the chairman, Dr. H. G. Langworthy, as follows:

REPORT OF COMMITTEE ON CONSERVATION OF VISION AND HEARING

To the House of Delegates of the Iowa State Medical Society:

Gentlemen—The work of the Conservation of Vision and Hearing Committee, as you know, has kept steadily onward in spite of pressing war activities, and the true worth of organized professional helpfulness is being appreciated, I believe, in this state as never before. In addition to two former years of successful labors, we have this year been fortunate enough to be a most helpful instrument in establishing the new day-school for deaf children in Des Moines as a part of the public school system, have carried on exceedingly important legislative work with respect to the securing of additional funds for the State School for the Deaf at Council Bluffs and have been of the greatest aid in directly fostering and putting on its feet a new state society, the Iowa Association of Parents of the Deaf with its first annual meeting here in Des Moines this week. In addition to the foregoing we have also assisted in preparing one article of considerable historical importance, and published in the February issue of the Iowa Medical Journal, namely, "Matters Pertaining to the Education of the Deaf in Iowa," by Mr. J. H. Spencer of Dubuque, a thousand copies of which have been and are being distributed throughout the state to legislators, educators, and others interested. Time will not permit me to go into further details in this report but it is sufficient to give you an idea of the more important and general scope of the work as carried on.

In closing, as Chairman of this Committee, I make the suggestion that the committee be continued if possible throughout another year as we have some plans either in the formative state or partly started which should be carried out along eye and ear lines.

Respectfully submitted,  
Henry G. Langworthy,  
Chairman.

It was moved and seconded that the report be accepted and the committee continued. Carried.

No report from Committee on Publication.

Dr. J. W. Cokenower, Chairman, presented the report of the Committee on Public Policy and Legislation.

Upon motion, duly seconded and carried, the report was accepted.

#### REPORT OF COMMITTEE ON PUBLIC POLICY AND LEGISLATION

The legislation enacted and amended by the Thirty-eighth General Assembly of Iowa relative to Public Health was, by far, more than by any preceding Assembly, and the limited time of this report will only briefly mention the principal acts.

##### Community Housing

The Community Housing bill was passed with but little opposition, and will be a state-wide public health factor, and a benefit to the poor.

##### Vital Statistics

This bill, passed two years ago, was amended so as to make it decidedly beneficial in recording information relative to births and deaths, and a sufficient appropriation was made to make it practical.

##### Quarantine

This bill was amended so as to give state, county towns, and township boards of health more discretionary power in quarantining and requiring a physician to be on all boards; and quarantining several diseases and suspicious cases, not heretofore considered, especially, influenza.

##### Venereal Disease

This bill was, perhaps, discussed more generally than any other bill, and was finally passed and an appropriation made by state and the U. S. Government sufficient to make it of special importance in controlling vice and benefitting the public health of the state.

##### Medical Library

This bill failed two years ago, but was passed this year, and provides for adding suitable books to the library as needed; also provides for a trained medical librarian, who can interpret important foreign languages. Photographic copies of important medical literature can be sent to any doctor in the state when not convenient for him to visit the state library.

##### Psychopathic Hospital

This bill carried with it an appropriation of \$175,000 for a hospital at Iowa City for acute mental defectives, and certainly was a well-timed humane act on behalf of such unfortunates. This appropriation was the largest of any single one for public health, yet liberal and sufficient appropriations were made for all other health bills passed, including child welfare research, bacteriological laboratory, free dental service for the poor, and medical and surgical aid for

indigent children and adults, in the state hospital at Iowa City.

##### Chiropractors

The chiropractic bill which was about the same as the one presented two years ago and demanding a special examining board composed of chiropractors, was a dangerous one to the public health, and was maintained by a paid lobby during the entire session that exerted a tremendous influence by a well organized system, including personal interviews, telegrams, letters, and one special lobbyist from Pittsburgh, and also their national organizer.

The bill did not require any preliminary education, not even to read or write, to enter their school, neither did it require any clinical or dissecting advantages.

We maintained that they should have the same preliminary education as the osteopaths or drugless healers and four years schooling of nine months each, and a single board of medical examiners composed of the members of the present state board.

The bill was before the Committee of Public Health of the senate several times, being supported by chiropractic lobbyists and opposed by the medical profession, and to our surprise was recommended by the committee of the senate for passage; but before the vote was taken, an amendment was offered and carried, to substitute for the special chiropractor board of examiners, one member to sit with the present regular board of examiners.

This amendment legally killed the bill, because none but regular graduates can be members of our present board. However, the senate passed the bill to the house where it remained during the balance of the session with the Committee on Public Health.

##### Osteopaths

The osteopathic bill presented to the house, and companion piece to the senate, was by far more dangerous than the chiropractic bill, and was postponed indefinitely by the committee on public health in the senate, however, not without much opposition but did not fare so well in the house, although finally defeated.

The national osteopathic agent of Chicago filed and supported the bill, assisted by several osteopaths of Iowa, and, if it had have passed, would have eliminated our present State Board of Health and Medical Examiners, and substituted an osteopathic one instead, and made the Osteopathic College of Des Moines, the leading school of the state.

The last section of the bill stated, "All medical acts and parts thereof, conflicting herewith, are hereby repealed," which would have canceled all medical laws now existing and made the osteopaths so far as the demands of their proposed law, regular physicians and surgeons; hence, it is not difficult to see the gravity of the bill, which, like the chiropractic one, was never reported out of the committee and indefinitely postponed.

Your committee believes, judging from information gained in the last legislature, that two years hence, not only the chiropractors, osteopaths, but the

christian scientists as well, will ask for recognition and separate examining boards and their past experience will materially assist them in preparing their plans, thus making a more formidable demand for recognition, and thereby endangering the medical laws, we now have, by lowering the high standard.

It is surprising the adverse viewpoint taken by many members of our legislature concerning modern, medical education, who openly state the reason the regular medical profession oppose the chiropractors and osteopaths is a purely mercenary one, because their efficient work endangers our practice, which makes it more difficult to sustain the medical laws we now have, and especially to make improvements.

The best plan for the future in maintaining modern, medical education, judging from past experience, would be one of two ways:

First—Each county medical society in the state to have a legislative committee whose main duty would be to keep in touch with the members of incoming legislature and with the State Society Legislative Committee, on points germane to modern medical education; and

Second—Do as Ohio and a few other state medical societies have done, take the viewpoint that the medical profession is not the law maker, but are modern, sanitary, hygiene, public health and medical educators and advisors not only to the laity but to members of the legislature, and the latter should be made to understand that they are the law makers and executors of the same through the proper officers of the county and state, and responsible to the public in general and especially to their constituents for good public health and medical laws.

J. W. Cokenower, Chrm.

At 5:30 p. m., a motion to adjourn was made, duly seconded and carried.

The delegates from the various congressional districts then assembled for the purpose of selecting a member from each district to serve upon the Nominating Committee. The committee reported was as follows:

First District—H. C. Hull, Washington.

Second District—J. C. Langan, Clinton.

Third District—L. C. Kern, Waverly.

Fourth District—W. R. McCray, Charles City.

Fifth District—P. M. Hoffman, Tipton.

Sixth District—S. E. Hinshaw, Newton.

Seventh District—M. N. Voldeng, Woodward.

Eighth District—Frederick Binder, Corning.

Ninth District—C. S. Kennedy, Logan.

Tenth District—W. T. Peters, Burt.

Eleventh District—P. B. Cleaves, Cherokee.

### Second Meeting, Thursday Morning, May 8

The second meeting of the House of Delegates was called to order in the Rose Room of the Chamberlain by the President at 8:15 a. m.

Roll call showed the presence of ten officers and thirty-seven delegates, a total of forty-seven.

The minutes of the previous meeting were read, and upon motion approved.

Dr. D. S. Fairchild, Chairman of the Medico-legal Committee, reported for that committee on the report of the Medical Defense Counsel, Mr. C. M. Dutcher, given at the previous meeting. The Medico-legal Committee recommended that the present policy of medical defense for members of the Iowa State Medical Society be continued.

Dr. W. B. Small moved that the report and recommendations of the Medico-legal Committee be adopted. Seconded and carried.

The Report of the Committee on Health and Public Instruction was read by the chairman, Dr. Paul E. Gardner.

Upon motion, duly seconded and carried, the report was accepted.

### REPORT OF COMMITTEE ON PUBLIC HEALTH AND INSTRUCTION

The Committee on Health and Public Instruction, beg to report that several talks on health matters have been given over the state. Special credit is due Dr. Jeannette F. Throckmorton as she personally has conducted ten baby health conferences, examining over 1000 babies, and given over 110 talks, reaching over 15,000 people. Great credit is due Dr. Throckmorton for her good work on the committee.

Paul E. Gardner, Chrm.

### REPORT OF DR. JEANNETTE F. THROCKMORTON

Member of Committee on Health and Public Instruction

### Baby Health Conferences—1000 Babies Examined 1918

Mt. Ayr, Baby Health Demonstration, May 25.

Derby, June 28, 85 babies examined.

Olmitz, July 3, 80 babies examined.

Gunwald, July 8, 50 babies examined.

Tipperary, July 11, 65 babies examined.

Russell, July 12, 52 babies examined.

Oakley, July 15, 42 babies examined.

Chariton, July 17, 224 babies examined.

Adair County Fair, Greenfield, September 10-12, 35 babies examined.

Iowa State Fair, Des Moines, August 22-31 400 babies examined.

### Health Talks

"Baby Health Year," Mt. Ayr, May 25.

"Baby Health Year," Chariton, Library Club, June 8.

"Baby Health Year," Clarinda, July 9.

"Food and Health Conservation," Clarinda, July 9.

"Dress and Health," Yeoman Castle, Des Moines, September 19.

"Social Education," "Morals and Health" talks. Mt. Ayr, May 25, Presbyterian church, mothers and daughters.

1919

Ft. Dodge, January 13, High school girls, at high school. January 14, Quaker Oats Factory; High school girls; business women at Y. W. C. A. (400).

Marshalltown, January 15, Western Grocery Company; business women at Y. W. C. A. January 16, girls at Soldiers' Home.

Cedar Rapids, January 17, Washington High School, high school girls. January 18, Douglass Starch Factory, canning girls; Douglass Starch Factory, office girls. January 20, Washington High School, high school girls; National Oats Factory; city club women, at Commercial Club. January 21, Killian's Dry Goods Co., (82 clerks); National Oats Factory; city club women. January 22, Martin's Dry Goods Company, (83 clerks); Clark McDaniels Overall Factory; Grant Vocational School, parents and teachers. January 23, Killian's Dry Goods Company; Clark McDaniels Overall Factory; business college girls, at Y. W. C. A.; Church Kensington.

Waterloo, January 25, club women, (300). January 26, business women and parents, at Y. W. C. A. January 27, Litchfield Mfg. Company; Model Laundry; high school girls; Parent-Teachers Association, Fisk school. January 28, Model Laundry; West High school girls; Parent-Teachers Association, Hawthorne school. January 29, Parent-Teachers Association, Lincoln school.

Dubuque, January 30, Rosek Dry Goods Company; Johannsen Candy Company; Stamfer Dry Goods Company. January 31, Rosek Dry Goods Company; Stamfer Dry Goods Company; business women, at Y. W. C. A.

Clinton, February 1, Wire Fabric Company; Clinton club women, at Y. W. C. A. February 3, Lyons High School; Clinton High School. February 4, Lyons High School girls; Clinton High School girls; John H. Van Allen Dry Goods Co.; Curtis Door and Sash Company (office and factory).

Davenport, February 5, Purity Oats Company, office and factory girls; Crescent Macaroni Company, office and factory. February 6, high school girls at high school; Iowa Telephone girls; Crescent Macaroni Company. February 8, Iowa Steam Laundry Company; Parent-Teachers Association at Tyler school; M. L. Parker Dry Goods Company. February 10, Y. W. C. A. mass meeting (225).

Muscatine, February 9, Iowa Pearl Button Co., sorters and machine girls; high school girls. February 10, Hawkeye Button Company. February 11, high school girls; Iowa Pearl Button Company; Heinz Pickle Company; Automatic Button Company.

Ottumwa, February 12, Iowa Steam Laundry; high school girls. February 13, employees of dry goods stores in city, Commercial Club Rooms; four Parent-Teachers Associations at Stuart school; Pol-lester Cigar Company. February 14, high school girls.

Chariton, February 15, M. E. Church, parents, teachers, club women.

Creston, February 16, M. E. Church, parents, teachers, club women.

Council Bluffs, February 18, John Beno Dry Goods Store; Boyles Business College; Parent-Teachers Association, at 32 Street School. February 17, John Beno Dry Goods Store; Parent-Teachers Association, Oak street school.

Sioux City, February 19, Moore-Schenkberg Candy Company; Cudahy Packing Company, factory girls. February 20, Davidson's Company, office and saleswomen; Moore-Schenkberg Candy Company; Armour factory girls; Y. W. C. A. dinner, business women; business women and parents, at Y. W. C. A. February 21, Junior High School at Morningside, talk I; Junior High School at Morningside, talk II; Parent-Teachers Association at Longfellow school.

Des Moines, February 24, Cownie Glove Company, office and factory girls. February 25, Kraft Ten Cent Store; Trades and Labor Hall, Ladies Auxiliary Carpenters Union. February 26, Wilkins Bros., office and saleswomen; high school girls at North High School; Herring Motor Company, office and stenographers; Washington-Irving High School girls; girls at East High School. February 27, girls at West High School; Washington-Irving High School girls; girls at East High School; Girls Vol. Army, business women, at Y. W. C. A.; girls at North High School; girls at West High school; Auditorium, girls and women, (1200).

Chariton, March 9, United Brethren Church, "Health and Education."

Indianola, March 31, Simpson College chapel, talk on health, (400); talk to girls only, at Simpson College.

### Summary

Ten baby health conferences examining over 1000 babies; 110 health talks reaching 13,752 women and girls, not including advice and talks to mothers, aunts and sisters at the baby conferences.

Respectfully submitted,

Jeannette F. Throckmorton.

In the absence of a report from the Committee on Constitution and By-laws, the Secretary was requested to read the amendment to the constitution, proposed at the Sixty-seventh Annual Session. The Secretary then read:

In Article 8, Sec. 3, in line seven after the words "who has not been in attendance at the annual session," add "except one who is absent on account of illness or who is in the government service."

After the reading of the proposed amendment and changes, and after the reading of Article 8, Sec. 3 of the constitution as it would read after the proposed changes were made, Dr. Voldeng moved that the amendment to the constitution as proposed at the Sixty-seventh Annual Session be laid on the table. The motion was seconded by Dr. Small and carried.

No report from Special Committee on War Work.

A communication from the secretary of the Medical Society of the Missouri Valley was read by the

Secretary; as was also a communication from Dr. Alex R. Craig, secretary of the A. M. A.

Kansas City, Mo., May 6, 1919.

Dr. T. B. Throckmorton,  
Sec'y Iowa State Medical Society,  
Des Moines.

To the Officers and Members of the Iowa State Medical Society, in Session at Des Moines, Iowa:

The Medical Society of the Missouri Valley extends greeting and a cordial invitation to attend its home-coming meeting celebrating victory and peace, which will be held in the City of Des Moines, September 18-19, 1919. The presidents of all the State Societies within our province will be invited to attend this meeting and a royal reunion is anticipated.

Very sincerely yours,

Chas. Wood Fassett, President.

Chicago, March 31, 1919.

Dr. T. B. Throckmorton, Sec'y,  
Iowa State Medical Society,  
Des Moines.

Dear Doctor:

At a recent meeting of the Judicial Council, there were two matters presented to that body as "general professional conditions" pertaining to the relations of physicians to one another and to the public.

In order that the Judicial Council may take these subjects under consideration, and if it be deemed advisable, make recommendations to the House of Delegates and the Constituent Associations relative thereto, the Council has directed me to ask for information.

First, what, if anything, is being done in a systematic way by your State Association or by any of its component county societies for the relief of aged or physically incapacitated physicians or for members of the families of physicians who are in financial distress. It is known that in certain localities, branches of the organization have made provision for meeting conditions of this character when they arise. The Judicial Council desires to determine whether or not these efforts are capable of being standardized or coordinated. Consequently it will appreciate a report not only of what measures are now in effect but also a memorandum of how this relief is afforded, and whether these measures are fully meeting the needs among the profession of your state.

Second, both that the question may have the consideration of your State Association, if it has not already taken action, and also that the Judicial Council may have information concerning what is being done, your counsel is desired as to how the organization—the county, state and national bodies—can best assist physicians who are being released from military service to re-establish themselves in civilian practice. It has been reported to the Judicial Council that in a few instances county medical societies have apparently objected to physicians returning from military service endeavoring to locate within the jurisdiction of these societies—at least that they

have refused to consider applications for membership submitted by these physicians, and it is alleged, have objected to these physicians affiliating with the staffs of, or undertaking to treat patients in local hospitals. The Judicial Council appreciates there are two sides to every question and is anxious to determine the consensus of opinion relative to these matters, and others pertaining to the main question, namely, how best physicians returning from military service can be assisted to re-establish themselves in civil practice.

Very truly yours,

Alex R. Craig, Secretary.

It was moved that the communication from the secretary of the A. M. A. be referred to the Council. Seconded and carried, and the communication was so referred.

It was moved and seconded that the Secretary respond to the State Dental Society for their floral offering and good wishes. Carried.

At nine o'clock on motion, which was duly seconded and carried, the House of Delegates adjourned until 8 a. m. Friday morning.

### Third Meeting, Friday Morning, May 9

The House of Delegates met in the Rose Room of the Chamberlain, and was called to order at 8:15 a. m. by the President, Dr. Max E. Witte.

The Secretary called the roll, and reported ten officers and thirty-two delegates, a total of forty-two present.

The minutes of the previous meeting were read and approved.

The report of the Committee on Nominations, being the first order of business, Dr. Prentiss B. Cleaves, chairman, presented the report.

Your committee beg leave to submit the following report:

For President-elect—Donald Macrae, Jr., Council Bluffs, A. M. Pond, Dubuque and E. T. Edgerly, Ottumwa.

For First Vice-president—George C. Stockman, Mason City.

For Second Vice-president—Granville N. Ryan, Des Moines.

For Councilors—Fourth district, Paul E. Gardner, New Hampton; seventh district, Channing G. Smith, Granger; eighth district, Samuel Bailey, Mt. Ayr.

For Trustee—J. W. Cokenower, Des Moines.

For Delegate to A. M. A.—W. B. Small, Waterloo.

For Alternate Delegate to A. M. A.—W. W. Bowen, Ft. Dodge.

For vacancies on the following committees:

Medico-legal—H. B. Jennings, Council Bluffs.

Public Health and Instruction—Henry Albert, Iowa City.

Constitution and By-laws—V. L. Treynor, Council Bluffs; Wm. Jepson, Sioux City; E. J. Cole, Woodbine.

Publication—W. L. Bierring, Des Moines; C. P. Howard, Iowa City.

Finance—C. P. Frantz, Burlington; C. J. Saunders, Ft. Dodge; J. W. Harrison, Guthrie Center.

Public Policy and Legislation—B. L. Eiker, Leon; J. W. Cokenower, Des Moines; J. W. Harrison, Guthrie Center.

Meeting Place for 1920—Des Moines.

Prentiss B. Cleaves, Chrm.,

P. M. Hoffman, Sec'y.

Dr. Cleaves moved that the report be accepted and the committee discharged. The motion was duly seconded, put and carried.

### ELECTION OF OFFICERS

The next order of business being the election of officers, the House then proceeded to an election.

The ballot for President-elect was taken.

The President declared that as no one had received a majority vote, a second ballot be taken. On the second ballot, Donald Macrae, Jr., received the majority vote.

The President, Dr. Witte, announced that Dr. Donald Macrae, Jr., of Council Bluffs, having received a majority of the votes cast, was thereby elected President-elect.

Dr. V. L. Treynor, moved, in view of the fact that there was only one candidate selected for vacancies occurring in other offices that the rules be suspended, and the Secretary cast the ballot for the other officers as reported by the Nominating Committee.

Seconded and carried.

The Secretary then cast the ballot, and the President declared the nominees as reported by the Nominating Committee, duly elected.

Dr. Paul E. Gardner, Chairman of the Council, made the following report on the communication from Dr. Craig which was referred to the Council at the first session of the House of Delegates:

The Council of the Iowa State Medical Society knows of no organization in the State of Iowa for the relief of aged physicians and their families, nor does it know of any need of such an organization, and, therefore, have no recommendation to make regarding the request from the Judicial Council of the American Medical Association as given in the letter from Dr. Alex R. Craig, secretary of the A. M. A.

Paul E. Gardner, Chairman.

On motion, duly seconded and carried, the report was accepted.

The report of the Special Committee for War Work was given by the chairman, Dr. W. W. Pearson.

### REPORT OF WAR WORK COMMITTEE

The War Committee of the Iowa State Medical Society was appointed by President J. N. Warren, at the Sixty-seventh Annual Session.

The object of this committee as outlined at the session held at Fort Dodge, May, 1918, was: 'A complete canvass of the medical men of the state as to their qualifications, personal obligations which might

bar them from voluntary military service, and a statement as to their willingness to make applications for membership in the Medical Reserve Corps. The above information to be placed at the disposal of the Surgeon General of the Army.

Work accomplished by committee and method employed was as follows: Complete list of the medical men of the state, grouped as to counties, was secured from Secretary Alex R. Craig of Chicago. Using this as a mailing list, questionnaires were mailed, together with addressed return envelope, to every member of the medical profession in the state who was not already in the service. These questionnaires, when returned, were inspected and filed. The filing was done as to counties so that it was possible at a glance to tell the number of available men from each county of the state.

There were 3002 cards mailed, 34 of which did not reach the party addressed, 441 brought no response, and 2527 were filled out, returned and placed on file.

The expense incurred in this work was: postage, \$90.82; printing, \$85.20; files, \$31.45; stenographic work, \$39.00, a total of \$246.47. (Most of work done by private stenographer.)

When this work was well under way the work of the Volunteer Service Corps was originated by the Medical Section of the Council of National Defense under the direction of the Central Governing Board of the Volunteer Medical Service Corps of the United States. This work being accomplished by a state executive committee and county committees appointed by the state governing board (identical with the State Committee of Council of National Defense, Medical Section), exactly duplicated that outlined and begun by the war committee of the State Society. For this reason the work of the war committee ceased with the filing of the questionnaires. The above questionnaires are in the office of the chairman of the war committee.

### FOR THE INFORMATION OF THE SURGEON GENERAL'S OFFICE

Name .....  
 Address .....  
 Place of birth.....  
 If of alien birth, how long naturalized.....  
 Age..... Height..... Weight..... Married.....  
 Number of minor children and their ages.....  
 Other dependents .....  
 Are you a graduate from high school?.....Date.....  
 If a college graduate, when and where was your degree obtained? .....  
 When and where did you obtain your medical degree?.....  
 If you have had hospital experience, state when, where and in what capacity .....  
 If you have had post-graduate work, state where and when .....  
 How many years have you been in active practice?.....  
 Are you practicing any specialty?.....What?.....  
 If you have had military training, where and when?.....  
 Are you physically fit for service in the Medical Reserve Corps? .....  
 If not, state why.....  
 Have you volunteered?.....Have you been discharged or rejected? .....  
 If physically incapacitated or over age, have you volunteered in the Medical Service Corps?.....  
 Have you financial responsibilities of such a character as to prevent you from entering the M. R. C.?.....

Give particulars .....  
 If unable to enter the service now are you willing to volunteer  
 at a later date?..... When?.....  
 What is the population of your town?.....  
 What is the number of its active physicians?.....  
 Remarks: .....

Respectfully submitted,  
 W. W. Pearson, Chairman.

Dr. W. B. Small moved that the report be accepted, and the bills as read be referred to the Board of Trustees, with recommendation for payment. Seconded and carried.

Dr. M. N. Voldeng, moved that the date of the next session of the Iowa State Medical Society be May 12, 13 and 14, 1920, at Des Moines.

The motion, being duly seconded, was put and carried.

The report of the Finance Committee was given in the absence of chairman by Dr. C. J. Saunders, Fort Dodge.

#### REPORT OF THE FINANCE COMMITTEE

The committee examined the Treasurer's report, compared the orders with the list of orders as given by the Treasurer; examined and compared the check stubs with the canceled checks from the bank, and find them to correspond in detail with the exception of one check for \$3.00 which was listed in the Treasurer's report of last year but the check had not been paid at the bank, and therefore appeared among the paid checks for this year. Also one check for \$11.75 for which we failed to find the order; also an order for \$1.89 for which the paid check was not found as at the time the report was made out, the check had not been presented to the bank for payment; otherwise the report corresponds in all respects with the papers submitted by the Treasurer.

(For an explanation of alleged errors as above reported, see letter from C. J. Saunders, following the Transactions of the House of Delegates.)

The Secretary, Tom B. Throckmorton, moved that the report of the Medico-legal Committee as published in the transactions of the House of Delegates at the Fort Dodge Session, be accepted. Seconded and carried.

Dr. E. M. Williams, of Oskaloosa, was invited to speak of the work of the Committee of the Public Health Association for Iowa, which committee had been appointed for the state at the meeting of the American Public Health Association, held in Chicago in December, 1918, and who with Dr. A. L. Wheeler, of Mason City and Mr. Benjamin Woolgar, of the Public Safety Department of the City of Des Moines, constituted the committee.

The object of this committee, as stated by Dr. Williams, was to formulate a correlation of the various existing health societies, there being fifty-seven organizations in the United States, and about fifteen different organizations in Iowa. Dr. Williams rec-

ommended that representatives of these various organizations meet with the public health men and the mayors of the cities of the state in a conference to organize a State Public Health Association, as some of the other states have done, and that a committee be appointed from the Iowa State Medical Society to meet with them.

A discussion on the subject of Public Health and Public Health Societies in Iowa, followed the report given by Dr. Williams.

The physicians participating in the discussion were: G. H. Sumner, Des Moines; J. W. Cokenower, Des Moines; V. L. Treynor, Council Bluffs; C. S. Kennedy, Logan; C. H. Magee, Burlington, and G. P. Reed, Davis City.

Dr. W. B. Small moved that the matter brought out in the discussion be referred to the Committee on Public Health and Legislation. Seconded and carried.

Dr. Paul E. Gardner, made a recommendation that a standing committee be named by the House of Delegates to cooperate with the state librarian, Mr. Johnson Brigham, in the selection of books and periodicals for the medical department of the state library, such department having been created by the Thirty-eighth General Assembly. The committee recommended were: D. S. Fairchild, Sr., W. L. Bierring, Oliver J. Fay, Gershom H. Hill, and George Royal.

#### NEW BUSINESS

Under the head of "new business," Dr. J. W. Kime presented the following resolution, and moved its adoption by the House:

**Whereas**, Legislation has been enacted which opens the State of Iowa to commercial insurance companies who may write insurance indemnity for the physicians of the state; and,

**Whereas**, Under the present methods employed by the Iowa State Medical Society through its Medico-legal Committee, mal-practice suits have been reduced to a minimum, and the payment of claims almost to the vanishing point; therefore, be it

**Resolved**, That the Medico-legal Committee of this Society be instructed to present these facts plainly to the medical profession of the state with the view to discountenance the taking of insurance for indemnity in such commercial companies.

The motion was seconded and unanimously carried.

Dr. Tom B. Throckmorton, Secretary, moved that the House of Delegates authorize the purchase and presentation of a gavel to all living ex-presidents of the Society to whom a gavel had not been presented. The motion was duly seconded and carried.

At 10:00 a. m. a motion to adjourn was made. Seconded and unanimously carried.

The President, Dr. Max E. Witte, then declared the House of Delegates adjourned sine die.

Tom B. Throckmorton,  
 Secretary.

Fort Dodge, Iowa, May 12, 1919.

Dr. Thomas F. Duhigg,  
Treasurer of Iowa State Medical Society,  
Des Moines.

Dear Doctor Duhigg:

Since making my report for the Committee of Finance to the House of Delegates of the Iowa State Medical Society, I find that the items reported by me as not balancing with the report—the King check for \$3.00, the check of \$1.89 uncashed, and the check No. 372 for \$11.75 without voucher. I have now said voucher at hand, and checks above referred to, explained, and balanced with account. I, therefor, recommend that the notes in report to House of Delegates relating to above, be stricken from the record and that said report show that the reports, checks and vouchers of the Treasurer balance.

Yours truly,  
C. J. Saunders.

For the Finance Committee.

MINUTES OF THE COUNCIL

The Council met at the Rose Room of the Chamberlain, May 8 at 1:00 p. m. It was moved and seconded that the same officers be re-elected for 1920. Carried. The officers are, Paul E. Gardner, chairman; G. C. Moorehead, Ida Grove, Secretary.

Paul E. Gardner, Chairman.

OFFICERS AND COMMITTEES OF THE IOWA STATE MEDICAL SOCIETY 1919-1920

President.....	W. L. Allen, Davenport
President-Elect.....	Donald Macrae, Jr., Council Bluffs
First Vice-President.....	George C. Stockman, Mason City
Second Vice-President.....	Granville N. Ryan, Des Moines
Secretary.....	Tom B. Throckmorton, Des Moines
Treasurer.....	Thos. F. Duhigg, Des Moines
Editor.....	David S. Fairchild, Sr., Clinton

TRUSTEES

J. W. Cokenower, Des Moines.....	1922
W. B. Small, Waterloo.....	1921
T. E. Powers, Clarinda.....	1920

DELEGATES TO A. M. A.

W. B. Small, Waterloo.....	1921
J. C. Rockafellow, Des Moines.....	1920
M. N. Voldeng, Woodward.....	1920

ALTERNATE DELEGATES

W. W. Bowen, Fort Dodge.....	1921
B. L. Eiker, Leon.....	1920
J. C. Langan, Clinton.....	1920

COUNCILORS

Term Expires

First District—John R. Walker, Fort Madison.....	1920
Second District—Henry Albert, Iowa City.....	1922
Third District—W. A. Rohlf, Waverly.....	1921
Fourth District—Paul E. Gardner, Chairman, New Hampton.....	1924
Fifth District—Geo. E. Crawford, Cedar Rapids.....	1923
Sixth District—O. F. Parrish, Grinnell.....	1923
Seventh District—Channing G. Smith, Granger.....	1924
Eighth District—Samuel Bailey, Mt. Ayr.....	1924
Ninth District—A. L. Brooks, Audubon.....	1922
Tenth District—W. W. Beam, Rolfe.....	1921
Eleventh District—G. C. Moorehead, Secretary, Ida Grove.....	1920

COMMITTEES

MEDICO LEGAL

D. S. Fairchild, Sr., Clinton.....	1921
H. B. Jennings, Council Bluffs.....	1922
Lewis Schooler, Des Moines.....	1920

HEALTH AND PUBLIC INSTRUCTION

Paul E. Gardner, New Hampton.....	1921
Jeannette F. Throckmorton, Chariton.....	1920
Henry Albert, Iowa City.....	1922

CONSTITUTION AND BY-LAWS

V. L. Treynor.....	Council Bluffs
Wm. Jepson.....	Sioux City
E. J. Cole.....	Woodbine

PUBLICATION

D. S. Fairchild, Sr.....	Clinton
W. L. Bierring.....	Des Moines
C. P. Howard.....	Iowa City

FINANCE

C. P. Frantz.....	Burlington
C. J. Saunders.....	Fort Dodge
J. W. Harrison.....	Guthrie Center

SCIENTIFIC WORK

Wm. L. Allen.....	Davenport
Tom B. Throckmorton.....	Des Moines
Thos. F. Duhigg.....	Des Moines

PUBLIC POLICY AND LEGISLATION

J. W. Cokenower.....	Des Moines
B. L. Eiker.....	Leon
J. W. Harrison.....	Guthrie Center

ARRANGEMENTS

Wm. L. Allen.....	Davenport
Thos. F. Duhigg.....	Des Moines
Tom B. Throckmorton.....	Des Moines
Two members from Polk County Medical Society.	

Iowa City, Iowa, May 17, 1919.

Dr. D. S. Fairchild,  
Clinton, Iowa.

Dear Doctor:

I have your favor of the 15th inst. and in reply will say that I am enclosing you herewith a copy of the Act for Mutual Insurance as requested. The interlineations were made by me to make the Act conform to its text upon final passage.

I am also enclosing you the amendment to Sec. 2, Ch. 428, of the Acts of the Thirty-seventh General Assembly of Iowa which authorizes this kind of insurance by stock companies.

Yours truly,  
Chas. M. Dutcher.

HOUSE FILE NO. 197

A Bill for an Act

Providing for the organizing, admitting from other states, licensing and regulating of mutual insurance corporations, organized among physicians, druggists, dentists and graduate nurses for their protection against loss in actions for alleged error, mistake or negligence; requiring such organizations to be incorporated; providing for fees, taxes, licenses, reports, cancellations, supervision and other regulations thereof and repealing all acts and parts of acts in conflict therewith.

Be it Enacted by the General Assembly of the State of Iowa:

Section 1. Any member of physicians, druggists, dentists and graduate nurses, licensed to practice their profession in the State of Iowa, may, by complying with the provisions of this chapter and without regard to other statutory provisions, enter into contracts with each other for the purpose of protect-

ing themselves by insurance against loss by reason of actions at law on account of their alleged error, mistake, negligence or carelessness in the treatment and care of patients or including performance of surgical operation in the prescribing and dispensing of drugs and medicines, or for loss by reason of damages in other respects, and to reimburse any member in case of such loss. All corporations, organized for the purpose of transacting such insurance business under the provisions of this act, shall incorporate under the provisions of Chapter 1, Title IX of the Code, as amended, and be known as mutual corporations; and are hereby empowered to collect such assessments, or premium payments, provided for in their articles of incorporation or by-laws, as are required to pay losses and expenses incurred in the conduct of their business. Such mutual insurance corporations may issue certificates of membership, or policies; and may provide that all assessments, or premium payments, payable thereunder, be made in cash, or on the installment, or assessment plan. Any policy issued by any such company shall contain a provision so that said policy shall inure to the benefit of any person obtaining a judgment against the insured to the extent of the insurance carried and for the purpose for which the insurance was issued.

Sec. 2. The articles of such mutual insurance corporations shall be submitted to, and approved by, the attorney general and the commissioner of insurance before being filed with the secretary of state, and no such mutual insurance corporation shall issue membership certificates, or policies, until its form of certificate, or policy, shall have been submitted to, and approved by, the commissioner of insurance and until it has secured from such commissioner of insurance a certificate authorizing it to transact such an insurance business. No such certificate shall be issued by the commissioner of insurance until two hundred fifty (250) applications have been received, representing, in the aggregate, one million (\$1,000,000) dollars of insurance, nor until the commissioner of insurance has satisfied himself that such mutual insurance corporation has bona-fide applications representing the number of applicants and the amount of insurance herein required, and that there is in the possession of such mutual insurance corporation cash assets amounting to not less than ten thousand (\$10,000) dollars.

Sec. 3. Such mutual insurance corporations doing business under the provision of this chapter shall, annually, in the month of January, report to the commissioner of insurance, upon blanks furnished by him, the same facts, so far as applicable, as are required to be furnished by mutual insurance associations under the statute of Iowa, which report shall be tabulated by the commissioner of insurance and published by him in the annual report on insurance.

Sec. 4. Such mutual insurance corporations shall, annually, set aside and maintain as a re-insurance reserve, an amount equal to ten per cent. of the receipts from assessments, or premium payments, dur-

ing the year until the total amount thus accumulated shall equal forty per cent., but not to exceed fifty per cent. of the amount of the annual assessment, or premium payment, at the rate charged for such insurance on all policies in force. The reserve thus accumulated may be used for the payment of losses and expenses, and when so used shall be restored and maintained in like manner as originally accumulated.

Sec. 5. Any certificate of membership, or policy, issued by such a mutual insurance corporation may be cancelled by the corporation by giving five days written notice thereof to the insured; or such cancellation may be upon demand of the insured; and such cancellation, when so made, either by the corporation or by the insured, shall be upon a pro-rata basis, and the cancellation of such certificate or policy shall release the member from all other future obligations to such corporation.

Sec. 6. Such a mutual insurance corporation shall pay the same fees for admission into the state for annual reports and for annual certificates of authority as are required to be paid by domestic mutual companies organized and doing business under Chapter 4, Title IX of the Code of Iowa, as amended; such certificate shall expire March first of the year following the date of its issue. The commissioner of insurance shall have and exercise the same control over such corporations as he now has over mutual assessment insurance associations organized and doing business under the provisions of Chapter 5, Title IX of the Code of Iowa. The provisions as to maximum liability of members to assessments when assets are insufficient and to assessments when the corporation is insolvent, found in sections 1759-j, 1759-k and 1759-l, Supplement to the Code, 1913, shall apply to all mutual insurance corporations organized under the provisions of this act.

Sec. 7. Any mutual insurance association organized under the laws of any other state, for the purpose of transacting the kind of business described in section 1 of this act, and which has been in business not less than one year, and has on hand cash assets in an amount of not less than ten thousand (\$10,000) dollars and has not less than three hundred (300) members, shall upon application, be admitted to do business in this state; and shall thereafter make all reports and be subject to taxation, examination and supervision by the commissioner of insurance to the same extent and in the same manner as are domestic corporations organized under the provisions of this act.

Sec. 8. All acts, or parts of acts, in conflict herewith shall be so construed as not to include corporations regulated by this act.

Sec. 9. This act being deemed of immediate importance shall be in full force and effect on and after its passage and publication in The Des Moines Register, and The Des Moines Capital, newspapers published in the City of Des Moines, Iowa, all without expense to the state.

## H. F. NO. 523

## An Act

To amend the law as it appears in Section two (2), Chapter four hundred twenty-eight (428), acts of the Thirty-seventh General Assembly of Iowa, authorizing certain insurance companies to insure against loss or damage resulting from personal injury or death caused by error or negligence of the insured in the practice of medicine, surgery or dentistry, or in the prescribing or dispensing of drugs or medicines.

Be it Enacted by the General Assembly of the State of Iowa:

Section 1. That the law as it appears in Sec. two (2) Chapter Four Hundred Twenty-eight (428) Acts of the Thirty-seventh General Assembly of Iowa, be, and the same is hereby amended by adding thereto, between lines seven (7) and eight (8) thereof, and as paragraph (b), the following:

(b) Insure against liability for loss, damage or expense resulting from personal injury or death caused by error or negligence of the insured in the practice of medicine, surgery, or dentistry, including the performance of surgical operations, or in the prescribing or dispensing of drugs or medicines, or for loss, damage, or expense the insured is legally liable; provided, however, that any policy issued by any such company shall contain a provision so that said policy shall inure to the benefit of any person obtaining a judgment against the insured to the extent of the insurance carried and for the purpose for which the insurance was issued.

Sec. 2. That the law as it appears in Section Two (2) Chapter Four Hundred Twenty-eight (428) Acts of the Thirty-seventh General Assembly of Iowa be, and the same is hereby further amended by renumbering paragraphs (b), (c) and (d), as paragraphs (c), (d) and (e) respectively.

Sec. 3. This act being deemed of immediate importance shall take effect and be in full force from and after its passage and publication, according to law, in the Des Moines Capital and the Des Moines Register, newspapers published in the City of Des Moines, Iowa.

After being closed for two years due to government restrictions prohibiting visitors from the stock yards because of the war, Armour and Company's huge plant in the Chicago stock yards is again open to visitors, an announcement from the company states.

This announcement will prove of interest to not only people who intend to visit Chicago some time this summer but to many others as well because, the announcement says, "preparations are being made by Armour and Company to open their other plants in various parts of the country so that a trip through a packing plant which is an educational one, will not just be limited to Chicagoans or visitors to Chicago, but to people in fifteen different parts of the United States, where Armour and Company have packing plants. Uniformed guides are in attendance to explain the various interesting things to be seen."

## SOCIETY PROCEEDINGS

Members of the Dubuque County Medical Society met at the office of Dr. J. M. Walker, president, Monday evening and passed resolutions of regret at the death of Dr. James M. Boothby.

Dr. Boothby was a member of the society and was held in high esteem by all his fellow workers. Following are the resolutions:

"As the long train of ages pass away" so it has come that our brother, Doctor James M. Boothby, has been called and gathered to Our Fathers. Those of us who have been his co-laborers in the field of medicine, and who have known him in his professional career in this life, wish to give testimony to his long, honorable and faithful service. Therefore, be it

Resolved, That in the death of Doctor James M. Boothby the medical profession has lost one of its most distinguished members, whose ability and valuable attributes will long be remembered by those who came within his influence. That in this life we may well take an inspiration for faithfulness, prudence, economy, bravery and a sense of honor well nigh ideal; he exemplified in truth the highest type of American professional gentleman.

Resolved, That a copy of these resolutions be spread upon the records of the Dubuque County Medical Society, and that the family be assured of our heartfelt sympathy.

J. J. BROWNSON, M.D.,  
S. S. LINDSAY, M.D.,  
C. A. KEARNEY, M.D.

The Fort Madison Medical Society met at the residence of Dr. F. C. Roberts. The subject of discussion was Sleeping Sickness introduced by a paper by Dr. J. M. Cassey of Spirit Lake.

The Johnson County Medical Society met May 14 at the University Hospital. The meeting was postponed from May 7, on account of the state meeting. A splendid program was given by Dr. R. A. Fenton, assistant professor of oral surgery, College of Medicine, University of Iowa, on the subject Fractures of the Jaws, and Dr. Bundy Allen, head of the department of roentgenology, University of Iowa, on the X-ray in Diagnosis and Therapy.

Dr. Fenton by cases and models showed how fractures of the different parts of the mandible are reduced, held in place and perfect occlusion without ankylosis secured. He demonstrated one case in which the entire right half of the mandible had been removed on account of a malignant growth which was healing with perfect occlusion of the remaining half of the mandible and which would be fitted with an artificial half mandible when the healing was completed. He also demonstrated casts and appliances which have been used in a case where both superior maxillae had been fractured and displaced. In this case he had been able to secure perfect reduction and perfect occlusion.

Dr. Allen presented a series of slides showing how

the x-ray is used in diagnosis of many conditions; ureteral calculus, ureteral kinks, urinary calculi, foreign bodies in lungs, stomach and intestine, active gastric peristalsis, purulent affection of accessory sinuses, hydro- and pneumo-thorax, tuberculosis, empyema, and other pulmonary conditions.

A very interesting case of influenza, complicated by double bronchial pneumonia and later a laryngeal diphtheria, was presented by Dr. A. Sinning. The case terminated favorably, the later complication, diphtheria, disappearing quickly after the administration of antitoxin.

G. C. A., Sec'y.

The Johnson County Medical Society held its June meeting Wednesday evening, June 4. The program was as follows:

Dr. Margaret Armstrong gave the methods of examination of the nasal sinuses and the ears by which infection could be determined in the individual sinuses. She explained how the character of the infection was determined and whether or not it was of a mild or dangerous type.

Captain H. L. Beye related some of the non-medical experiences in the late war. These were greatly enjoyed by all present. Captain Beye has seen some active work on the front at the battle of Chateau Thierry and was also with the British forces when the great March drive was made for the channel ports.

Dr. H. J. Prentiss gave a very interesting talk on the investigation of the anatomy of the sole of the foot in relation to surgical approaches. In his usual clear manner he demonstrated the fasciae which divided the sole of the foot into three fascial spaces and demonstrated how by knowing the location of these fasciae the drainage of abscesses or the repair of injuries is greatly simplified.

A social hour preceded the program which was greatly enjoyed by all.

G. C. A., Sec'y.

The Lee County Medical Society met at the Hotel Iowa, Keokuk, May 1. It being the semi-annual meeting. Addresses by Drs. Reimers, Traverse and Armentrout.

The Webster County Medical Society, at a recent meeting, decided that hereafter all cases of smallpox should be placed under quarantine, and that quarantine should be dismissed only by the health officer. This is for the purpose, it was stated, of assuring uniformity in relation to matters of quarantine. Physicians will refuse to assume the responsibility of quarantine and will recognize that this is the province to the health office only.

While the contract between the Waterloo Medical Association and the county board of supervisors expired on April 26, the former organization met yesterday and the former organization has agreed to operate under the old contract until a new agreement

is reached. It is expected a new contract, which will vary in a number of important issues from that of the old, will be signed on May 22 or 23.

One new feature has already been adopted. In the future, when the county physician sends a patient at the expense of the county to a member of the Waterloo Medical Society to receive treatment, the latter physician will fill out a diagnosis blank. This diagnosis blank will be turned over to the Social Welfare League and will become the permanent property of the public nursing staff and will be preserved for future reference.

The diagnosis blank is a small questionnaire and includes the following information:

Place where diagnosed, date, name of patient, address, diagnosis of physical or mental ailment, the scientific name and explanation of term, whether the disease is chronic, acute or curable, probable duration of illness from present date, whether or not the patient needs hospital care, when the patient should return to the physician for treatment, regular occupation of patient, when the patient will be able to work, nature of work he will be able to do, whether or not his line of work is injurious to progress of patient during treatment, treatment given, instructions to nurse, further remarks.

With the aid of this information, it is expected those directing social welfare work will have a valuable guide to aid them in this class of work.

## OBITUARY

### Memorial Service for Dr. Frank C. Roberts

Gathering at the office of Dr. Austin Philpott, the Fort Madison Medical Society arranged to attend the funeral of their late president, Dr. F. C. Roberts, in a body.

It was also decided upon that the next regular meeting of the society would be given over entirely to a memorial service for Dr. Roberts, who since the founding of the organization has been one of its most prominent and active members, having been elected to the office of president twice. Dr. Roberts is the second physician to die since the formation of the organization. Dr. E. C. Chapman having preceded him to the grave.

France Cole Roberts was born at Otsego, Allegan county, Michigan, on January 10, 1855, being the eldest son of Dr. Abel C. and Emily Ann (Cole) Roberts. The family came to Fort Madison in the spring of 1859. He received his education in private schools of the city and graduated from the Fort Madison Academy in 1872. He then read medicine under his father until the fall of 1873 when he entered the Medical College of the University of Michigan, of which institution his father was an early graduate. He attended the Michigan school for two years, then transferring to the Louisville (Ky.), Medical College, from which he graduated in 1876, then returning home and beginning the practice of his profession with the father, whose practice he assumed a few years later, the senior member of the firm withdraw-

ing from active practice. In point of years of service he was the oldest physician in the city.

On January 12, 1882, he was united in marriage with Miss Ella Layton, who died on April 21, 1884, leaving one son, E. L. Roberts, now of San Francisco, Calif. Following the death of his wife he went to Europe where he spent several months in post-graduate work in the famous old world medical schools and hospitals, then returning to Fort Madison and resuming practice.

On November 22, 1889, he married Mrs. Ann Cowell Burtch, who, with one daughter, Katherine Eggleston Roberts, survives him.

For several years prior to the Spanish-American War Dr. Roberts was in the medical corps of the 2d Regt. Iowa National Guard ranking as first lieutenant. At the outbreak of that war he reported at Camp McKinley at Des Moines, accompanying Company F of this city. He was on the staff of Gen. J. Rush, Lincoln and was assigned to special duty in sanitary work.

For nearly forty years Dr. Roberts has been the physician member of the local board of commissioners of insanity, his last reappointment having been recently made by Judge W. S. Hamilton. He also served terms as physician to the board of health of the city under several past administrations. He was a member of the Lee County Medical Association and was the president of the Fort Madison Society, presiding at the last meeting of that body, held at his home Monday evening of last week, he reading a most interesting paper on "Sleep." He was the first president chosen of the last named society, at its organization a number of years ago.

#### A Pioneer Gone

Dr. T. B. Jennings died at his home in Drakesville May 7. He was born at Tipton, Iowa, February 20, 1843. Six months later his father with his family came to Davis county, settling north of Drakesville where the deceased spent his childhood. The Doctor was seventy-six years, two months and seventeen days old at the time of his death, and all of that time, lacking six months, his home was in Drakesville and vicinity. He was named for Thomas H. Benton, United States senator, of whom his father was a strong supporter and admirer. Having finished his studies in the public school of Drakesville the deceased took a course in Oskaloosa College, Iowa, after which he spent several years teaching in Drakesville and vicinity. At that time he was considered one of the most successful teachers in the county. George Hambleton and wife of Bloomfield and others present at his funeral had been his pupils. The years 1872 to 1875 were spent at the Keokuk Medical College. He graduated there in March, 1875. Dr. Shreve of Bloomfield was a fellow student and graduated at the same time. After his graduation Dr. Jennings returned to Drakesville and began the practice of medicine, continuing until his last illness, covering a period of forty-four years.

He was a soldier in the Civil War, as a member of

Co. B, 30th Iowa Infantry, and was discharged at Milliken's Bend, Louisiana, May 4, 1863.

On October 9, 1881, he was married to Kate ONeal, who survives. Dr. Jennings had lived in Drakesville and vicinity longer than any one now living and his death leaves a place that can never be filled. Dr. Jennings was also a member of Davis County and Iowa State Medical Society.

#### Major Henry E. Bunch, Surgeon of 168th Infantry, Rainbow Division, Killed in a Jitney Accident

Although Major Bunch was not an Iowa surgeon his relation to the 168th Regiment makes him a subject of peculiar interest to Iowa people. When Lieut. Col. Conkling was assigned to be director of field hospitals, Major Bunch was believed to be the best fitted available man for the medical command of the Iowa regiment.

After almost two years service in the front line, with British and American forces, Maj. Henry E. Bunch, regimental surgeon One Hundred Sixty-eighth Infantry, was fatally injured, two hours after returning to his native land, when the jitney bus in which he was riding from Hoboken pier to Camp Merritt was wrecked late Friday night.

Major Bunch was regimental surgeon of the Iowa guardsmen from May, when he joined them in the Bacarat sector, until the arrival in America. As such he won sincere admiration throughout the whole of the Rainbow Division for the manner in which he conducted the medical work for the regiment.

For his service in Champagne and later in Chateau Thierry and St. Mihiel he was decorated by General Pershing with the distinguished service cross. His work in Chateau Thierry when he opened his first aid post at Croix Rouge farm while that point of dispute was still the center of combat, established him as one of the coolest and most courageous of the officers of the famous Iowa Rainbows while his hard work under the difficulties of lack of dressings, surgical instruments, and ambulances furnished the Hawkeye fighters with the best possible treatment obtainable.

For six days in those trying hours of the last of July and the first of August when the regiment was advancing from the Croix Rouge farm north of Chateau Thierry to the Ourcq and later to the Vesle, the major, then a captain, worked for days without rest except to munch a little hard tack or bully beef. In that time more than 1,450 men of the regiment alone went through his aid stations, while probably as many more from other units in the fighting alongside the Iowa front were treated. At times, with German shells bursting in the buildings around him as he worked, he labored with a line of fifty wounded men on stretchers awaiting him. The conditions under which the work was performed, the chilling rain which fell well nigh continuously wetting blankets and dressings, made the task one almost beyond human attempt but Bunch attempted it, and succeeded and was supported by the wonderful assistance of Lieutenants Van Meter, Williams and the

others who called the One Hundred Sixty-eighth their home.

This is an attempt made to explain why he became one of the most beloved and popular men in the regiment. His home was in South Carolina and his southern accent will ever be remembered by the boys. He is a man more than six feet tall, and built accordingly, having an almost perfect build and a tremendous physique.

He reached France before General Pershing and his staff, landing in May, 1917. He was then first lieutenant, he was detailed at once to the British forces, and after serving with English and Scottish troops in Ypres was sent with General Byng's army in the dash for Cambrai.

In November he served with front line troops through the terrific fighting of last winter which turned the great British victory near Cambrai into an unquestionable defeat at Bourlon woods.

After this experience he served with the Fourth British army and was in the front, about to go on leave when the storm broke, March 21. As a member of it he witnessed the collapse of the Fourth army which sent the troops he was with in rout back to Montdidier and Arras.

His experience in this retreat, which was perhaps as thrilling and still as bitter as any fighting the war saw, fitted him for the work he was to do with the soldiers of his own land later, when in May he joined the Iowans at Badonviller.

He was considered at first as a scare monger. The Americans had been in the front line for four months at that time in a quiet sector.

"Better wait until you go into war," was the major's hearty reply to all tails of their experiences. His activity in preparing the men for what he knew they were to meet, and his preparations were considered by many of his new regiment as unnecessary but two months later when the men were veterans of the Champagne and Chateau Thierry they thanked their fortune which brought Bunch.

For six months on the Rhine the major talked unceasingly of home. His ambition to return was spontaneous after the armistice and his longing for the southland was only equaled by a desire to go out there and visit Iowa.

Mrs. Ellen T. Whitman, eighty-five years old, wife of the late Dr. Henry Lyman Whitman, died May 20, 1919, at her home, 1143 Pleasant street.

Dr. Whitman died in 1885. He came to Des Moines in 1865 and was one of the first physicians to establish himself here. He was also the founder of the Polk County Medical Society, and was elected president of the same at the time of the forming of the organization. Mrs. Whitman was a member of the Plymouth Congregational church and was one of the founders of that church many years ago.

Dr. Walter Henry Fox, formerly of Waucoma died in Serbia, where he was a captain in base hospital No. 85. He was decorated by the Serbian government for distinguished service and the Fox Hospital

was named in his honor. He was a victim of pneumonia. Dr. Fox graduated from the University College of Medicine in 1905.

Dr. A. Anderson of Estherville, died at the Anderson Hospital, of apoplexy May 19, 1919.

Dr. Anderson had been prominently identified with professional affairs in northern Iowa for many years. Dr. Anderson was born in Linn county, December 5, 1861. His parents were of Irish descent, his grandfather came from the northern part of Ireland and settled in Pennsylvania before the Revolution. Dr. Anderson's father, Thomas Anderson came to Iowa in 1854, entered the Union Army in 1862, served until his death in 1865.

Dr. Anderson was educated in the common schools and two years in a private school, became a teacher and later became a train dispatcher and railway agent. In March, 1890, graduated from the medical department of Iowa State University. Dr. Anderson was for many years local surgeon for the Rock Island road at Estherville.

Dr. Anderson on May 13, 1883, married Miss Effie Conley who with their only son survive him.

Dr. Charles S. Settlemyer, a graduate from Drake University 1901, died April 23 at Loma Linda Sanitarium of Spru.

Dr. Settlemyer was a missionary to China sent by the University Christian Church. He went to China in 1904 and remained there until last October when he returned to California with his family. During a part of his time in China he was professor of history and political science in Naukin University.

#### PERSONAL MENTION

Col. D. S. Fairchild, Jr., chief surgeon, 42nd Division, has received citation from General Pershing dated May 13 for exceptionally meritorious and conspicuous service.

Dr. Bartruff has been discharged from the army and resumed practice at Reinbeck.

Dr. J. O. Woodmanse of Leon has been appointed a member of the State Board of Parole to succeed D. R. Mott of Indianola.

Dr. W. S. McClelland of Morning Sun has disposed of his interests there and moved to California.

Dr. E. W. Bonslaugh has located at Little Rock.

Dr. George M. Middleton has been reappointed city physician of Davenport.

Dr. F. E. Rodemeyer, formerly of Alexander, has recently been honorably discharged from the Medical Corps of the U. S. Army and has located at Sheffield.

Dr. S. D. Maiden has been released from service in the medical corps and will resume practice in Council Bluffs.

It is said that Dr. Peters of Burt wants an aeroplane.

Dr. W. S. Devine of Marshalltown was recently operated upon at the Mayo Clinic.

Dr. J. R. Winnett has been honorably discharged from the United States army and has resumed practice at Eldora.

Dr. Clare Clapsaddle of Algona has recently been honorably discharged from army service and located in Titonka.

Lieut. Walter E. Foley of Davenport, for services rendered French soldiers near St. Mihiel salient, was cited by the French government.

Captain P. H. Schroeder of Davenport has arrived home from overseas.

E. J. Wehmann of Burlington, captain in Unit R of the medical department of the army of which a number of Iowans are members, has been decorated by the French government for his work in the hospitals in France.

Dr. L. G. Stuhler has now returned to Monticello and resumed the practice of medicine. His office is located on the second floor of the Monticello State Bank building.

Dr. Lillie A. Arnett, recently returned from France where she did relief work, went to Chicago last night, where she will be for the next two months taking post graduate work.

Dr. C. H. Mitchell, formerly of Leon, who has been serving overseas for many months, has been made a captain. He has been located for some time at Hal, Belgium. He presides over one of the hospital wards in the surgical department and also has charge of a ward of influenza. The two departments or wards contain 275 beds.

A friend encountered Dr. Lewis Schooler recently and casually asked him what was the best play he ever saw. The friend expected a reply that would make the shade of William Winter, that eminent dramatic critic, turn over in its narrow chamber. Would it be Edwin Booth in "Hamlet;" Henry Irving in "The Dells;" Richard Mansfield in "Don Carlos;" the elder Salvini in "Richard III?" What would it be, out of a wealth of observation and experience? "What's the best play you ever saw, doctor?" he repeated. "Poker" replied Doctor Schooler, briefly and positively.

Dr. and Mrs. D. S. Fairchild arrived in New York today, accompanying a party of Des Moines friends that they may be among the first to welcome the Rainbow Division on its return. Col. D. S. Fairchild and his staff sailed from France on the Leviathan. The staff includes a number of Clinton boys.

Mrs. Lee Wallace Dean and Dr. Laura H. Branson entertained Nu Sigma Phi, national medical sorority last evening at a banquet given at the Jefferson Hotel. A very enjoyable program followed.

Dr. Ray R. Kulp of Davenport, a member of the U. S. Medical Corps, arrived in New York on the steamer Manchuria. Dr. Kulp expects to be mustered out of service within a short time and will join his family at St. Petersburg, Fla. Dr. Kulp has been in France since last August, having been com-

missioned in September, 1917. After post-graduate work in an Eastern hospital he expects to return to this city where he will resume his profession.

Dr. R. S. Reimers, who recently returned from France where he has been connected with the medical corps of the United States Army for the past year and a half, is now preparing to reopen his offices in the Fort Madison Savings Bank building which offices he expects to occupy.

Dr. C. J. Snitkay of Belle Plaine, who has been in France for several months, was appointed major last November.

Dr. Charles Mulroney, who has recently returned from overseas service in the medical corps, will resume medical practice in Fort Dodge. Dr. Mulroney will move from the First National Bank building to the Snell building.

Dr. Josephine Rust of Fort Dodge who has been helping with the social morality campaign in Texas and Oklahoma, was appointed chairman of the American Women's Hospital in this district. This organization has been affiliated with the American Red Cross since America entered the war. Immediately upon being accepted they began to send abroad a company of women physicians, the most capable of the profession.

Dr. John O'Connell, recently honorably discharged from army service, has located at Pomeroy.

Captain Corwin Cornell of Knoxville, serving in France, has been granted a three months leave of absence to attend French medical schools.

Dr. L. F. Waldman has located in Remsen.

Dr. Philip M. Day, formerly of Barnes City, has located in Oskaloosa.

Captain H. I. McPherrin of Perry has been honorably discharged from the medical service U. S. Army and will resume practice in Perry.

Dr. Walter Foley of Davenport, United States Medical Unit, has returned from nine months overseas service.

Dr. M. C. Jones and Dr. U. M. Whitehall of Boone have returned from overseas service.

Captain Frank Fuller of Keokuk has returned from more than a years service in France.

Dr. A. C. Rhine has returned from overseas service and will resume practice in Hampton.

Captain Ben S. Walker who has been serving overseas for six months has returned and will resume practice in Corydon.

Dr. W. J. Fenton, who for more than fifteen years passed has been practicing at Mystic, Iowa, has recently been discharged from service at the Base Hospital, Camp Sherman, Ohio, and is at present in New York taking post graduate work in orthopedic surgery. Dr. Fenton expects to open offices in the new Iowa building in Des Moines about August 1 where his practice will be limited to orthopedic surgery.

Dr. Frank A. Will, assistant medical director of the Bankers Life Company, recently returned from overseas, where, with rank of captain he served in a London hospital, was married in Kansas City to Mrs. Ethel Israel Will, widow of his father, Dr. Fredrick J. Will, who was medical director of the Bankers Life Company. The elder Dr. Will, who was widely known in medical and insurance circles, died several years ago while on a trip through the south.

Dr. Loran M. Martin, until recently chief of the eye, ear, nose and throat service, base hospital No. 93, Cannes, France, has been discharged from the service and resumed his practice at Fort Dodge.

Dr. A. G. Fleischman, late urologist to camp hospital No. 26, Noyes, France, has been discharged from service and has resumed his practice in Des Moines.

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### MARRIAGES

Dr. J. L. Hanchitte of Sioux City to Mrs. Edith A. Nash of Sioux City.

Dr. H. F. Borchert of Tripoli to Miss Gertrude Lenius of Dubuque.

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### IOWA MEDICAL MEN IN THE SERVICE

To Fort Sheridan, Ill., from Lakewood, Lieut. J. O. Murphy, Eldon.

To Fox Hills, N. Y., from Camp Dix, Capt. S. M. Langworthy, Cedar Rapids.

To Washington, D. C., Surgeon General's Office, from Camp Dix, Col. D. S. Fairchild, Clinton.

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### BOOK REVIEWS

#### HUMAN INFECTION CARRIERS

Their Significance, Recognition and Management. By Charles E. Simon, B.A., M.D., Professor of Clinical Pathology in the University of Maryland School of Medicine and of the College of Physicians and Surgeons, Baltimore. Lea & Febiger, 1919. Price \$2.25.

The importance of the carrier question became vital during the war. The safety of camps depended on the early discovery of disease carriers. Before the war only a few hospitals had made any attempt to determine if discharged patients who had suffered from an infectious disease carried germs, very few laboratory tests were made. In fact the mass of the medical profession were entirely unfamiliar with the question. The few trained sanitarians were at first seriously handicapped for the lack of co-operation in detecting the cause of mysterious outbreaks of infectious diseases. The author of this useful book, in an introductory chapter, discusses the duties of hospitals and pathologists in affording the public greater protection against carriers who are distributing disease germs among the people. After considering the general question of carriers. Dr.

Simon takes up individual diseases, how the individual becomes a carrier, recognition of carriers and elimination; as cholera, diphtheria, typhoid fever and other recognized infectious diseases and especially pneumonia and influenza which have been like a plague in the past two years. In an appendix an outline is given of state laws in relation to infectious diseases. In Iowa the quarantine regulations as regards diphtheria are quite efficient if carried out, in protecting against carriers. No doubt the efficient methods adopted in military camps will in time have some effect in extending the regulations in states.

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### SURGICAL CLINICS OF CHICAGO

February, 1919, Volume 3, Number 1, with 75 Illustrations. Published Bi-Monthly. W. B. Saunders Company. Price \$10.00 Per Year.

This number contains a variety of interesting clinics, some are war clinics. It is to be hoped that a little later clinics will be prepared by men familiar with what actually occurred at the front. Many surgeons far back of the lines who never saw an actual battlefield have filled medical literature with ideal things and have freely criticized surgeons at the front for careless ways, for instance, faulty application of a splint without realizing, that many times splints were applied in total darkness, when a lighted match would invite a shower of high explosives. It appears to us that many of the published articles should have the word "war" surgery erased.

We are not able to cite any particular clinic as of predominating interest. All seem to be in line with general surgical experience and helpful in furnishing valuable suggestions.

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### ESSENTIALS OF SURGERY

A Text-Book of Surgery for Students and Graduate Nurses and for Those Interested in the Care of the Sick. By Archibald Leete McDonald, M.D., Johns Hopkins University, Formerly in Charge of Department of Anatomy, University of North Dakota; Lecturer on Surgery, Nurses Training School, St. Lukes Hospital, Duluth, Minn. Forty Illustrations. J. B. Lippincott Company.

The first three chapters are devoted to bacteria, types of local infections and specific pathogenic bacteria. Chapter four to tumors or new growths. Chapter five to wounds, hemorrhage, surgical operations and anesthesia. The remainder of the book is devoted to the consideration to the principles of surgery as related to the different systems, bones and joints, vascular and lymphatic systems and so on.

This is one of the Lippincott Nursing Manuals and covers questions of casual factors, pathology, natural course of disease, indications of treatment. The book is written in clear and concise language and should be placed in the hands of student nurses who are to be trained for real service.

**NEW AND NON-OFFICIAL REMEDIES 1919**

Containing Descriptions of the Articles Which Stand Accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1919. Published by the American Medical Association. Price \$1.00.

It is generally known that several years ago a Council of Pharmacy and Chemistry was organized to investigate the merits and value of the great number of remedies offered to the medical profession by interested commercial pharmaceutical houses. For this purpose a council of sixteen members was appointed with fifteen consultant members, all men of high standing and associated with universities. These pharmaceutical establishments presumably operating in good faith submit their products to the council for examination. When the product is found free from false claims and found to contain the substances set forth, the remedy if not recognized by the U. S. Pharmacopoeia is admitted to the list of non-official remedies as of some merit, which may justify the physician employing them in the treatment of disease. There can be no doubt that numerous pharmaceutical houses have contributed much to help the practitioner of medicine to secure preparations that are agreeable to the patient and helpful in the treatment of disease. The real value to be determined by the practitioner. To assist the practitioner and to protect him against fraud, monthly statements are published in the Journal, of new remedies accepted as non-official. Each year a volume is prepared at a low price for the convenience of the physician. The volume for 1918 is now before us, giving the facts as to composition, action and dosage of such new remedies.

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**ULTRA VIOLET RAYS IN MODERN DERMATOLOGY**

Including the Evolution of Artificial Light Rays and Therapeutic Technic. By Ralph Bernstein, M.D., Philadelphia. Professor of Dermatology, Hahnemann Medical College, Philadelphia. Achey and Gorrecht, Lancaster, Pennsylvania.

This volume of 162 pages is devoted to a consideration of the value of Ultra Violet rays in the treatment of certain skin diseases with particular reference to apparatus and technic. The author has used this method of treatment in a great number of cases with a satisfactory degree of success. We would particularly recommend this book to those who are devoting attention to a class of troublesome skin cases.

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**NEOPLASTIC DISEASES**

A Text Book on Tumors, by James Ewing, M.D., Sc.D., Professor of Pathology at Cornell University Medical College, New York City. Octavo of 1027 Pages with 479 Illustrations. W. B. Saunders Company, 1919. Cloth, \$10.00.

The subject presented in this work is one of great difficulty and requires a profound knowledge of tissue growth both normal and pathologic, on the part of the author. We know of no one better fitted to lay before the profession the latest information on tumors and tumor growth than Dr. James Ewing who has through personal research and analytic study of other workers contributed immensely to our knowledge of the subject. We are indebted to Dr. Ewing for undertaking a book of this kind and to the publishers, W. B. Saunders, who have made this book possible.

The book opens with a brief historical account of the theories of tumor growth, followed by a chapter on definitions and classifications and pathology. We have under the head of morphology of tumors, questions of growth, the precancerous stage of growth, modes of origin, neoplastic and inflammatory hyperplasia, regression changes in tumor growth and other facts in active tumor development; and the structure of tumors. Then follows questions of malignancy and its effects on the organism and metastasis which is of great practical importance. In chapter six, Ewing reviews the theories of the nature of cancer. None of these theories are generally accepted, all are subject to limitations. But important facts may be found in some of these theories at least. The influence of trauma in producing tumor growth and malignant neoplastic transformation and the primary development of cancer from single trauma of a certain kind is a chapter of considerable importance in relation to industrial surgery. We are informed of the importance of considering pre-existing and predisposing conditions.

Two chapters are devoted to the parasite theory of cancer and to experimental cancer research.

The etiology of tumors, especially cancer, is surrounded by so many difficulties that it requires the most careful individual analysis to determine the truth in individual cases and it is not altogether safe to accept the verdict of any single observer however eminent he may be. The statistics as to the traumatic origin of cancer varies from 2.5 per cent. by Kempf to 44.7 per cent. by Lowenthal. The medico-legal aspects of the relation of trauma to tumor are so important that after an exhaustive study by French observers a statute has been adopted in France which appears to the reviewer to be fair and just in the presence of so much divergent opinion on the part of men best fitted to judge. The French statute is as follows: "First. The authenticity and sufficient importance of the trauma. Second. Previous integrity of the wounded part. Third. A reasonable time relation, three weeks to three years or more in certain cases. Fourth. Continuity of pathological changes or symptoms in the wounded part and the appearance of the tumor. Fifth. Microscopical proof of the existence of a tumor." We believe the fourth condition to be the most important. In the relations of carcinoma of the stomach to trauma, Ewing states: "With the exception of rare cases following ulcer, the known beginning of the

disease is inconsistent with a traumatic origin." This view likewise has an important medico-legal bearing.

The greater part of the volume is devoted to the clinical types of tumors to the different tissues of the body. This book is one of the most important that has been issued from the medical press and should find a place in the libraries of all progressive practitioners of medicine and surgery.

#### ROENTGENOTHERPY

Albert Franklin Tyler, B.Sc., M.D., Professor of Clinical Roentgenology, John A. Creighton Medical College; Attending Roentgenologist St. Joseph's Hospital, Bishop Clarkson Memorial Hospital and other Omaha Hospitals. Member American Roentgen Ray Society; Fellow American Medical Association, etc. With One Hundred and Eleven Illustrations. C. V. Mosby Company, St. Louis, 1918. Price, \$2.50.

The improvements in x-ray apparatus and increased skill in interpreting x-ray plates has greatly extended the value of roentgenology in diagnosis, and the therapeutic indications are being more fully determined. It may be admitted at once that difficult x-ray determinations must be left to the highly trained specialist, but that physicians less favorably located may not be deprived of the benefits of x-ray examinations in limited fields, books have been published to bring a fair amount of knowledge of the subject to operators who have some knowledge of physics and have industry enough to master some of the essential facts. Among these books is the one under review. The author first describes and illustrates what he calls "necessary apparatus." There are thirty-three figures; and descriptive text in this division. Under the head of roentgenotherapy the author includes superficial and deep therapy. The reason for this is that it is simpler to classify the diseases according to the technic required rather than according to the etiology of the individual disease. Included under superficial therapy are diseases of the skin benign and malignant. In relation to malignant disease the author would not recommend x-ray treatment where surgery could be employed. The technic of deep therapy is pointed out which relates to the treatment of tumors benign and malignant keloids, aneamata, tubercular glands, etc. While the author does not approve of x-ray treatment where surgery can be employed. He recommends x-ray after operation as a means of lessening the danger of return notwithstanding much adverse opinion. The author devotes seventy pages to well illustrated case histories in support of x-ray treatment.

#### PROGRESSIVE MEDICINE

A Quarterly Digest of Advances and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M.D., Professor of Therapeutics, Materia

Medica and Diagnosis in the Jefferson Medical College, Philadelphia. Assisted by Leighton F. Appleman, Instructor in Therapeutics, Jefferson Medical College. Lea and Febiger, New York and Philadelphia, December, 1918. Price, \$6.00 Per Annum.

The first section of December Progressive Medicine consists of a digest of literature on diseases of the digestive tract and allied organs by Martin E. Rehfuess of Jefferson Medical College. The review is largely of the literature recording the work of gastroenterologists during the war who so materially assisted the Surgeon General's office. The opportunities were great for studies of conditions difficult to follow in civil life. An interesting observation was made on the effects of hot foods on producing disturbances of digestion. Mangnat was led to believe that hot foods especially hot soups and tea swallowed hurriedly passed through the mouth quickly into the stomach and irritated the large mucus membrane of that organ.

Meunier has endeavored to work out questions of pain some time after in ingestion of food by a study cryoscopy of the gastric contents. A great number of stomach and intestinal conditions are considered in this review.

Diseases of the kidneys are reviewed by Professor Henry A. Christian of Harvard. Dr. Charles W. Bonney of Jefferson Medical College furnishes the digest of literature on genitourinary diseases.

General surgical questions relating to shock, anesthesia, infections, fractures and dislocations and tumors are abstracted by Dr. Joseph C. Bloodgood. This review considers chiefly war conditions. One gets the impression from reading these reviews that nearly all of the really valuable medical and surgical work of the war was done by a small group of Harvard and Johns Hopkins Hospital professors. Some of the men whom we believe, did the hard and dangerous work, complained that their work was often handicapped by groups who were gathering data as it seemed to them for a paper to be read before some medical society. Not more than ten or fifteen names are mentioned and we were under the impression that several thousands of American surgeons were with the expeditionary forces. Quite likely we will hear more about the real facts when our army surgeons return.

The therapeutical referendum is prepared by Professor H. R. M. Landis of the University of Pennsylvania.

A Manual of Gynecology by John Cooke Hirst, M.D., Associate in Gynecology, University of Pennsylvania. Obstetrician and Gynecologist to the Philadelphia General Hospital, 12 Mo. of 466 Pages with 175 Illustrations. W. B. Saunders Company, 1918. Price, \$2.50 Net.

This manual is intended for the use of students and busy practitioners and is directed to the practical

(Continued on Adv. Page xvi)

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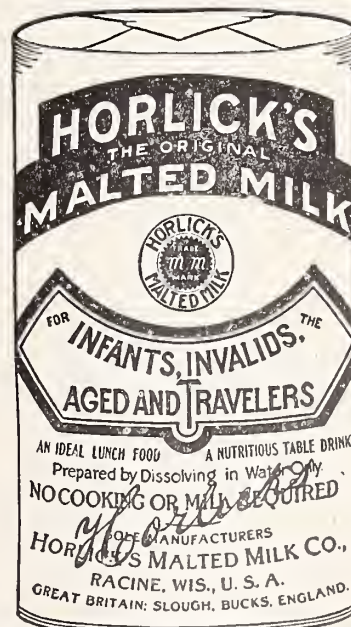
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## BOOK REVIEWS

(Continued from Page 258)

consideration of both obstetrical and gynecological questions where they so often come together. The author informs us that he has attempted to arrange the subject as he has presented it in his teaching during the past twenty years. All academic discussion has been omitted, only the main practical facts have been set forth as they come before the practitioner. Much space is given to the gynecological facts in obstetric accidents. Attention is given to menstrual disorders, displacements, pelvic inflammations, diseases of the uterus, leucorrhea, diseases of the breast, etc.

## INFORMATION FOR THE TUBERCULOUS

F. W. W. Wittich, A.M., M.D., Instructor in Medicine and Physician in Charge, Tuberculosis Dispensary, University of Minnesota Medical School; Visiting Physician, University Hospital, Minneapolis, Minn., with Foreword by L. G. Rowntree, M.D., Professor and Chief of the Department of Medicine, University of Minnesota. C. V. Mosby Company, St. Louis, 1918. Price \$1.00.

This book is intended largely for the lay reader, but contains valuable information for the doctor himself.

It is definitely known that drug treatment is of but little value in the treatment of tuberculosis and that a patient reporting from time to time at the doctor's office for a new supply of medicine is of little avail. There are certain things tuberculous patients should know. The conscientious physician will refer these cases to a man who devotes himself to the study and treatment of tuberculosis and for the patient's information, the physician can not do better than to place this little book in the hands of his patient. The book consists of lectures intended for lay readers. It is granted that an intelligent cooperative on the part of the patient is of the utmost importance to a favorable result, he must be educated in relation to the part he must play in the struggle to secure health or the prolongative of life. What a patient reads from a book will influence him greatly.

## THE MEDICAL CLINICS OF NORTH AMERICA, NOVEMBER, 1918

Published Bi-Monthly by W. B. Saunders Company, Philadelphia and London. Price Per Year, \$10.00.

This is a Philadelphia number and gives first a clinic at the University Hospital by Dr. Alfred Stengel on the Influenza Epidemics of 1889 and 1918. Dr. Stengel was an intern when the epidemic of 1889-90 occurred and a famous physician of large experience when the epidemic of 1918 occurred and his relation of the two epidemics is very interesting and instructive.

This clinic is followed by a clinic given Dr. H. R. M. Landis on Influenza and of its complications particularly pulmonary and pleuritic. Then comes a contribution to the surgical complications and sequelæ of influenza by Dr. John B. Deaver followed by a contribution on a Bacteriologic Study of Sputum in the recent epidemic by Dr. Randle C. Rosenberger. Dr. Charles W. Burr considers the mental complications sequelæ of influenza.

The bacteriology of influenza is presented by Lieut. Engine A. Case, M. C. U. S. R. E.

The nose, throat and ear affections complicating or following the recent epidemic of so-called influenza is reviewed by Dr. J. Leslie Davis with a ventured interpretation of their significance and finally a clinic by Dr. Maurice Ostheimer on influenza in children.

This exhaustive symposium on the different features of influenza will be of great interest to the general medical profession of this country. The remaining pages, about one-half of the number, are devoted to a considerable variety of subjects by men of high medical authority in Philadelphia, a detailed consideration of which we have not space at our disposal. We can only say that the 300 pages are filled with valuable material well worth careful study.

## PRINCIPLES OF BACTERIOLOGY (Nurses)

Arthur A. Eisenberg, A.B., M.D., Director of Laboratories, St. Vincent's Charity Hospital; Demonstrator of Pathology, School of Medicine, Western Reserve University; Visiting Pathologist, St. John's Hospital; Visiting Pathologist, Lutheran Hospital; Fellow American Medical Association. First Edition, 198 Pages with 40 Figures and Illustrations. C. V. Mosby Co., St. Louis. Price \$1.75.

This book is one developed from the syllabus of the authors lectures to nurses in training in St. Vincent's Charity and St. John's Hospitals, Cleveland, with such additions as have been found necessary to make this a suitable text-book for elementary students in the subject. Realizing that the manner of infection, the most efficient means of disinfection, and that a knowledge of prophylaxis is essential to all nurses, these phases are specially emphasized in the discussion of each group of organisms. The book has included the latest advances in bacteriologic diagnosis making it one well adapted for brief yet comprehensive courses for such students.

H. E. P.

## JOHNSON'S STANDARD FIRST AID MANUAL

This little work although published by a commercial house is exceedingly helpful to all persons who have to do with emergency conditions.

Physicians prefer to buy advertised goods, because such goods have standard prices, which prevent profiteering.

# The Journal of the Iowa State Medical Society

VOL. IX

DES MOINES, IOWA, AUGUST 15, 1919

No. 8

ADDRESS, DELIVERED BEFORE THE  
IOWA STATE MEDICAL SOCIETY,  
DES MOINES, MAY 7, 1919

JUDGE MARTIN J. WADE, Iowa City

*Ladies and Gentlemen:*

We all know that Dr. Fay is one who has the mission to make people happy, and that is the greatest mission in life. Many years ago I saw old Joe Jefferson the last time he appeared upon the stage, when he played with all his old-time geniality and youthfulness in the playhouse in the City of Washington. And after the play we had him at the club for supper, and, of course, he had to make a speech. And it was somewhat pathetic. He looked around and said: "Gentlemen, it is seventy years ago since I first appeared upon a public stage, when I was carried in as a child in my father's playhouse in the City of Washington. And during those seventy years I have played before your fathers and your grandfathers. And now, as the curtain is down and I look back through those years, there isn't very much left except a sort of a feeling that possibly I have helped to make somebody happy, and that is about all there is in life—making some one happy. I remember one day walking down Wabash avenue in Chicago, and in passing I saw a woman sitting on the steps with a child in her arms and she was crying very bitterly. I stopped and asked the cause of her grief and she said that she had come seven miles to have the child baptised and the minister refused to perform the rite unless she paid him three dollars and that she did not have the money. And I gave her ten dollars and said, 'Go in and have your child baptised.' She expressed her gratitude, dried her tears and carried the child into the church, and when she returned she handed me seven dollars in change and again thanked me for the service I had done her. I don't think I ever had a happier moment in my life than when I had helped to dry that mother's tears and received her grateful acknowledgment, and besides I had seven dollars

perfectly good money out of a ten dollar counterfeit bill."

I am glad to be here tonight. I do not do as much public speaking as I used to, in fact until this war broke out I had observed the ethics of the position I held which had made a Federal jurist a sort of a monastery wherein a man is supposed to think and not say anything. Of course, once in a while I have to say something and once in a while they don't like it. It does me good to get out in a crowd of joyous people once in a while, because most of my time now is spent in dealing with the somber things in life, with the weaknesses and frailties of human nature. And the disappointing thing is that constantly I am reminded that there is a place where I cannot make anybody happy. I sometimes feel that possibly I get out of humor and do not do just the right thing, but once in a while the cases come so fast that it does not give me a chance to properly weigh all the circumstances. I opened court last week and the first day of the term the district attorney started calling the names of the defendants and things were moving slowly—"The United States against Bill Jones," and Bill Jones in the back of the court room would unwind himself and straighten up and wander up to the bar. Finally I got out of patience and said, "Will all the defendants back there stand up and let us get through with this work?" And the audience arose as one man. And before I had finished that afternoon I was writing the sentences in figures because my arm became tired. There were sixty-seven defendants that day. That is real business! I remember one morning over here at the last term of court a fellow who had been arrested for a very mean offense came up and pleaded guilty and the next morning called for sentence. He was just one of those fellows that it makes one mad to look at. He got up there before me and I looked at him. I said, "Where is your home?" His answer was, "In the United States," and I said, "I will make it more definite for you; your post office address for two years will be Leavenworth, Kansas." I hated to see a fellow going around without a post office address. The latter

part of this month I have to go to Leavenworth to hold a term of court and I feel that I would like to go around and look over my friends; I think most of them are my friends, in fact correspondents of mine—I have letters from them every few days. And say—repentance? Why, I sometimes sit back and feel that I beat Billy Sunday all hollow! If Billy could see the letters of repentance that I receive and the tears that are shed down there it would make him envious. And yet I apprehend if I went and looked them all over I probably would be hard-hearted enough to wind up in the language used by an old farmer on one occasion, when Grover Cleveland, while out hunting with a friend, was hurt. And at twelve o'clock at night the two men stood on the steps of a farmer's house and knocked repeatedly. Finally the farmer thrust his head out of a window and said, "What do you want down there?" Cleveland spoke out and said, "We are hurt and want to stay here all night." And the farmer replied, "Well, stay there!"

Since the war began I have made but one speech, and that occasion supplied a reason providing that precedent. However, since the war began I have been talking most of the time, but haven't been talking about anything except the war, and it is going to be a long time before I talk on any other subject. I sometimes fear that possibly the American people are acquiring the wrong mental attitude towards this war, I sometimes fear that the general effort of the average American is to try to forget the war with all its horrors. I do not want to forget it. It is human, I suppose, to try to put behind us the horrors and the sorrows. There are men here tonight who have gone through the rigors of the camp and field, who have seen more of the horrors, more of the brutality of human nature, of man's inhuman conduct towards man, than anybody in the whole history of the world ever saw before. There are fathers and mothers here who have passed through many a dark hour while their boys were away, and probably there are those here whose best and dearest are lying under little white crosses on the other side. I do not wonder at an effort to forget, but I do not want the American people to forget this war. I want them to keep it alive in their souls, I want them to remember the sacrifice, I want them to remember the cause, and I want them to remember the glorious victory that came to the world through American arms, because, friends, I may say without a boasting spirit that the world will recognize the fact that it was the men and the women of this United States of America that turned the scales and won the war. I say, the men and the women of

the United States. I emphasize the part which the women of America played in this great conflict because they perfected and brought up their lines through organized effort such as was never seen before in any country, and they all, with determined purpose and unity of action carried onward through balanced judgment, did their great share in winning the war. In fact, one man was so proud of the part that the women played in this war that he raised up his hands with deep regret and expressed the great sorrow he felt that he had only one wife to give to his country.

I want the American people to get right down in their souls the thing that won this war. We all realize now, whether we want to or not, and sometimes it is hard to do it—we must admit that if we had not gone into this conflict, in time, perhaps not yet, not until the last red drop of blood had flowed from the gallant soldiers of Italy and France and Great Britain, but in time if America had not entered this conflict the Prussian power would have crushed those nations to the earth. We came in at the crucial moment, and we won the war. But let us not forget to analyze and determine, each for himself, the truth about how we won the war and what won the war, because it is a wonderful asset, not only for memory's sake, but for humility's sake in the days to come.

These boys that we sent over there, hundreds of thousands of them, were not trained soldiers, no. Most of them up to six or eight or ten months before had never handled a rifle in their lives. They came from the plow and from the counter, the bank and the railroad. Many, many of them, the majority of them, were I would almost say for the first time any distance from their mothers. And with a few months' hurried training they went over there and organized the greatest and most effective army the world ever saw. What was it? Not the flesh and blood and muscle, because across No Man's Land was fighting an army that had been born to war and trained to war and driven to war, and did war—strong, brutal power, up to that time the most powerful war machine that the world ever saw. No, it was not mere flesh and blood that won this war. What was it? It was not their training, because their training had been short. What was it? It was the spirit of the American boys that won the war, the spirit that drove those boys down into the valley of death in the face of volleys of machine gun fire that left them there broken, crushed, dead, with their comrades walking over them to victory. It was that spirit—the spirit that spread out from the American boy into the French soldiers and into the soldiers of Great Britain and Italy and gave them new life

and new hope. I tell you, friends, let us remember that it was the spirit of the American boys that won the war. (Prolonged applause.) Where did they get that spirit? They got it in the ideals of America, it came to them down even from Bunker Hill and Valley Forge, it came from the graves of the men that died that the nation might be born, and it came from the silent graves and often unmarked graves of the men that died in order that the nation might live; it came from the hearth-stones where they were born and raised, of lofty ideals of human liberty planted in their hearts at their mother's knee; these were the things that gave the spirit to the American boys which they took with them across the water in the face of all its dangers and carried out upon the field of battle. And I tell you, friends, that we must not forget—great God of hosts, be with us still lest we forget this war. I want to see the war remembered as a sacred memory, not only for the past, but especially for the future, because, while the war is over so far as any conflict is concerned—and we hope it will be over finally within a few days when the treaty of peace is signed,—that war has not yet been won for the peoples that made the sacrifice of human life. Until the fruits of the war have been harvested, I tell you if we do not get into our hearts the lessons of this war, and if we do not live those lessons, then the boys that died over there on the fields of France have died in vain. It would not do, my friends, to sit back contentedly and say, "Well the nations are getting together, it is a wonderful thing to have all the nations in the earth come together and join a league of nations which ultimately will bring our enemies under control." It is a fine thing, yes; but that is not all, nor is it the most important. The great thing that the world should learn out of this war is something more of the right answer to the great question that comes ringing down from the first family according to Holy Writ—that question, "Am I my brother's keeper?"—comes to us today, and we have in this war learned to answer that question, Yes, we are our brother's keeper. The fruit of this great victory will not be had until we learn that the brotherhood of man has become a reality, and we are beginning to realize more fully than ever before, something of the responsibilities which we carry in our every-day life of peace.

Did you ever stop to think what a wonderful thing this war was for us, with all its horrors and all its sacrifices and all its money and all its blood? One of the greatest blessings that ever came to us. Why, we have just discovered ourselves, we have discovered our power, our ca-

capacity for unity of action and organization, we discovered our efficiency, which had been dormant, we discovered what men and women could do who put their faces to the front and were determined to accomplish something. But that is not all. I sometimes feel (and it is hard to say), but I sometimes feel that this war was providential, especially for America. And I often recall the story of that poor Irish fellow who was shot to pieces and finally given a furlough to go back to his home in Ireland. He had only been there a few days when he said, "Well, I'm going back." And his friends pleaded with him, saying, "What in the world do you want to go back to that awful slaughter house for? It is an awful, a terrible war!" "Oh, I know," he said, "I know it is a terrible war, it is an awful war, but it is better than no war at all." We discovered not only our strength in this country, but, more important still, the war discovered to us our weaknesses. We discovered a condition in this country we never knew existed until the war came, and perhaps never would have discovered it until it became so strong that it might have destroyed this country. We were surprised to find that even in our own midst men living under the stars and stripes, men born under the stars and stripes, having all the privileges of education and of freedom of action in every way and all the advantages of a great, prosperous, productive country, were not Americans at heart, they did not belong under the flag at all, they were absolute rebels against the government they were living under. We found as we studied conditions that we were threatened with the same dangers, and we must not minimize them, as those under which the old world is struggling, and the noise of conflict comes sweeping across the sea as the bolsheviki and anarchists and radical socialists vie with each other in reaching out for the throat of our brothers. We cannot shut our eyes to the fact that the seed has been sown and that the time has now come when the spirit that aided us in this war and helped us win it, must be carried into civil life in the days of peace to drive out the dangers here at home. (Great applause.)

Now, we did not know, none of us ever dreamed, that in a state like Wisconsin, a fine state, a prosperous state, something over 106,000 men would vote for a man for the United States Senate who was at that time under indictment for the grossest violation of the war espionage act—under indictment for being an obstructor of the government in its efforts to win the war and who has since been tried and is under conviction and sentence to the penitentiary for ten years. These were not hidden facts, they were facts known to

all men, and yet I think there were 106,000 men in the State of Wisconsin who voted for that man as their representative in the department of legislation at Washington.

In Minnesota, at the last primary, there was a man running for governor, a former member of Congress, who, at the beginning of the war, had written a book which is about the most vicious thing—subtle perhaps, but vicious—that was produced west of the Mississippi River. And when I afterwards found that book and read it over and realized that the author was a candidate for governor of a great state like Minnesota, I felt ashamed of myself as I thought of some of the men that I have sent to Leavenworth and who are there yet for the things that they have done in their feeble attempt to obstruct the war. And yet, two years ago that man ran in the Republican primary as a regular candidate, supported by a certain organization of men, and received 146,000 votes. That book was published and sent broadcast all over the state and the people knew it, and yet in the midst of war, when the boys were dying and blood was flowing and all the world hung in the balance and we did not know whether civilization was going to be saved or sent back a thousand years, 146,000 of the manhood of Minnesota supported a man of that kind for war governor of that state.

It is necessary to have these examples before us all the time. Now since the war is over socialism is manifesting its most radical tendencies, bolshevism is rampant, and men are resorting to brute force, not with any hope of achieving directly or indirectly immediate results except to make themselves martyrs. Every man in public life is in danger. If the men and women who have written me letters and said they were going to do things to me had done them, I would be only a memory. The seed is here. The theory of this new school for this country is not to attain an immediate result, but to plant in the hearts of people the seed of terror, that is all, in order that they may achieve something indirectly which, of course, they cannot do directly. The last man I heard from was kind enough to give me a choice between a dum-dum bullet, a dirk in the dark, poisoning, or two ounces of t. and t. Now, of course, that is a fair proposition and I have been thinking it over and making my selection.

In the large cities, we do not know anything about the conditions. Well, what are we doing about it—what are we going to do about it? That is the big problem.

I am talking to a body of men and women who in my judgment carry great responsibilities, for I feel that in this period every man and woman

who has an education has peculiar responsibilities. Why? What are we going to do about it?—we might as well face the question squarely and get a definite relationship to it—what are we going to do about it? Are we going to use a club? I was very much depressed yesterday when I saw in the paper an editorial quoting some language attributed to the mayor of Seattle, a wonderful mayor who in a crisis in Seattle made a record for fearless courage which was really an inspiration to the men who are now of America. The other day it was reported in the press that the mayor of Seattle had said that if the government would not take hold of these people and hang them, or drive them out of the country, he would start out himself and do it, and have the hanging posts very handy. And I was glad to see the paper today that he has denied that he ever used that sort of language. Men come to me and say, "Why don't we drive those men out of the United States?" Where to? The other countries, you know, are not really short of that material, and they are not receiving that sort of guests very liberally. The trouble about it is that while we are supposed to have the power to export a man who is not a naturalized citizen, an alien, providing we have not kept him here for twenty years, yet when we undertake to send him back to the land he came from they can retort, "He was all right when he went there, you have spoiled him and we will not take him back now." The government will export as many as possible, but it is principally because of this fact that we cannot do so in many cases, whether we like it or not: We count noses, and I will guarantee that 75 per cent. of the radicals in this country today, all men with murder in their hearts, were born right here in the United States under the stars and stripes. During the war they used to talk about the pro-Germans, and when I would have a trial involving a violation of the war act some one would mention the fact that the pro-Germans were getting pretty thick, and all that sort of thing. Not one-third of the men tried before me for those offenses had any German blood in them at all, and not one-half of them were pro-German at all. They were simply anti-everything and especially America—they were not pro-Germany, they were simply against America. As a rule they are exaggerated egoists; they swell up with their own importance, they have a little puny idea of their own as to how to run the country, and if the other 999 men in the community do not agree with them they want to use a bomb. As a matter of fact I have often noticed that in any town of 1,000 people in Iowa there are at least four or five men, usually

gray-whiskered and dignified, who can sit on the shady side of a store building on a summer afternoon and whittle away wood and tell you just exactly how to run this country, while their wives chop the wood. We have got to deal with our own child. And what are we doing? What is the trouble and how are we going to meet it? Hang these people? No, that is using the weapon they have, that is giving credence to their creed, that is what they are advocating; we would thereby be taking their weapon, justifying them in their method.

I will tell you: This thing is not a thing of a couple of years' growth, it did not happen with this war; it is deep-seated, deep-seated down in the hearts of these men and has been there for years and years. How did it get there, how is it getting there every day? By education—education—that is all. In the schools? No, no, not exactly, though I know of one or two fellows in schools that are doing their share in teaching radical ideas and planting the seed of socialism and who ought to be driven out of the schools as fast as they can be found. I haven't any use for any man in any institution of learning who goes so far in teaching radicalism of that type as not to explain it to his pupils so our children may know of its dangers. And I haven't any use for any man in any educational institution who does not turn for a moment in the classroom and exalt above everything else in the way of government the United States of America, or who extols any form of government now existing or ever tried in the last seven thousand years, other than that form of government laid in the foundation of this nation by the fathers of the republic. Education is what does it, though, and it is going on every day. How? How many socialist papers are going into the City of Milwaukee, into Des Moines and other cities and into the homes of working people with five or six children around the table at night and no other paper there? Papers that are simply the exponents of class hatred, papers which, from one end of the year to the other, never give expression to a word of hope, of respect—teaching the gospel of hate of their fellow men.

A year ago last December I was up in North Dakota, where, as you know, they have established this non-partisan league, nine-tenths of the members of which are good, decent fellows, all right at heart, but misled—educated away, that is all. How did they plan this organization? The genius who hedged it with the power of a deposed czar in his palmy days, imported into the state dozens of the best speaking socialists in the United States, who from the school houses spread

the gospel of hate, proving to the farmers of the state who drove to the meeting in their automobiles that they were trampled under foot by the privileged classes. In the trial of the case I found out that at the lecture at which this trouble arose the admission fee was 35 cents, which admitted one to the hall and also gave subscription to the "Social Revolutionist," published in St. Louis, successor of the "Rip-Saw" which had been expelled from the United States mail. And that suggested to my mind this problem: How much of this sort of education are farmers and their children getting? And at the hotel at night I sat down and talked the matter over with some of the prominent men acquainted with the conditions in that state, and as nearly as we could estimate, there were going into the homes of the farmers of the state 40,000 socialist and semi-anarchistic papers weekly. And I want to put the question to you,—What is going to be the mental and spiritual attitude of the children sitting around a table where the sole thing to read at night is the social revolutionary organ? That is the way the education goes on in the dark, among the working men. If you look over a socialist paper, you will find whole paragraphs of advertisements offering pamphlets upon every subject and directed against the government, 2 cents, 5 cents, and these are sent out by the hundreds of thousands to the homes. Go down State street or Wabash avenue in Chicago along towards the fall of the year, and especially an election year, and you see a crowd up here on this cross street and another one down here, and you hear the loud voice of the orator on the soap box who is telling the little group around him, many of them derelicts, many of them failures, perhaps through their own fault or possibly due to misfortune, sickness, etc.; and every once in a while you find a working man coming along and he stops and listens and is convinced, before he gets away that the man on the box is telling the truth, that all working men are slaves and that they are oppressed by the privileged classes, that there isn't any hope in legislation, and that there is only one hope for the down-trodden and that is to fight his way to his rights. But he doesn't pay much attention to it, finally walks on and stops at the corner and orders a ginger ale—it doesn't make much impression on him. But don't you know that this sort of education is going on all the time? What are you going to do about it? You can't change this condition by the club, you can't do it by killing men—that is their field. There is something down deep in the hearts of all of us that repels compulsion. You can lead most of us, but it is awfully hard to drive us. And that feeling is

intensified in that type of people. We might just as well recognize it, and we might just as well recognize it in such a big way that we will realize our responsibility in doing our part to bring this movement into action. We had better travel the same way that the movement is traveling and educating them away from the United States—we have got to educate them back to the United States. For every word that has been spoken which put a stain on the flag, we have got to put into their ears and hearts a word which tells something of its glory and power and its kindness and its mercy. In other words, we have got to educate the men that are away from the United States, back into the United States. And we are going to do it.

When the war came on, we studied the financial problems involved, and after the first and second Liberty loans were carried through to success we said that we could never put over another Liberty loan. And this impression was so strong that it was believed by some of us that it would be necessary to raise the money by direct taxation. When the third Liberty loan came we just began to find our power. Who did? The people; not the leaders, not the officers, not the judges, not the congressmen alone, but the people just began to find their power. The people won the war, it was not anybody's war, it was everybody's war. And the people must take up the problem of education, no one man can do it. In truth, this process of education must be so widespread that there is an active force in every little group, in every little community.

I have said to men interested in this subject that there ought to be some center in which there would be published books and papers and magazines, wholesome, patriotic, sympathetic, just, treating all these problems that the under-dog has, presenting to him the problems of the employe and employer in a sympathetic way and making an appeal to his better nature; and that those things should be sent free into the homes where those sacrilegious publications are going in order that they might counteract the influences that have been at work. You cannot drive those papers out, those people, most of them, have got too far for that; you have got to educate them, you have to give them something to offset, you have to give them an antidote for the poison coming into their souls every day—you have to give them something of the sunshine to drive away the gloom of despair. A while ago, in talking to a man employing about one thousand men, I told him something of this dream of mine that such a thing would be possible. And I asked him, "With your one thousand men, wouldn't it be

worth to you ten dollars apiece a year to have each one of those men supplied with every issue of that sort of literature in their homes every day in the year?" He said, "Yes, it would be worth that—yes, three times that." It would be worth that in the gradual—not immediate, we are not going to get any immediate healing here,—it would be worth that in the gradual education of these men who will finally look up and realize that after all, the man they are working for, has problems as well as themselves; instilling something of duty in their souls towards the man who pays them the means wherewith to raise their families, and arousing in their hearts an inspiration as to what this nation is doing for the humblest and poorest in the land. Why, yes, it would be worth three times that, because in time you would establish a morale among the men in that factory that would mean greater results and less dissatisfaction, greater contentment and more happiness.

But aside from any movement of that kind there is not a man or a woman that cannot, to a certain extent, be a teacher in his own little community, by the proper treatment of the fellow that is wrong. And we all know them, that is, we know them among our neighbors, if we do not we must find out. We must start in this country an Americanization movement, the most important since the Civil War. And yet up to this day, to my mind it has not been even opened up, because, so far as the present project is concerned, the dominant thing which is contemplated under the bill now pending in the Senate is to teach the language to those of foreign birth and to try to get into the minds and hearts of the alien something of the glories of this country. I want to see an Americanization movement which will Americanize Americans, which will reach out and bring in the men under the flag whose fathers, some of them, fought under the flag at Shiloh; and I have had them before me—those whose fathers fought in the Civil War. Two weeks ago I sentenced a man who was a soldier himself in the Spanish-American war (in fact I have sentenced three who were soldiers in the Spanish-American war) and whose father was a soldier in the War of the Rebellion. I want to Americanize every man who has not in his soul the real spirit of America. We are just getting that spirit in this country. The United States is composed of forty-eight states, and up to the time the war came the mind rather pictured our state citizenship as the dominant thing in our relation to our country. The national spirit—the spirit of nationalism—has not been very prominent in this country until this war de-

veloped it, and now every patriotic citizen is realizing that the old flag is not the flag of Iowa or Nebraska or Minnesota or New York, but that it is the flag of the United States and that citizenship in the United States is a proud title and superior to the petty thought that my home is far off, that "I am a citizen of Rome." The spirit of Americanization, which means the spirit of nationalism, is the thing we must seek to instill into the hearts of the people. I want to see put into the hearts of the people a few things they do not understand—that so many of us do not understand; I want them to understand the proposition that every man in this country and soon every woman in this country will have the power to say what every law of this country shall be, and, further, that every citizen of this great nation shall have the power to abrogate any law upon the statute books which does an injustice, and there may be such because in this land we are a government by majorities—that is the only way we can run a republic, and the greatest thing to develop in the world is a recognition of that fact. If I could bring into the heart of every man and woman the spirit of submission which would enable him to yield, even though it hurt, to the will the majority has expressed, you would not have anarchy or socialism or anything else in this country that is detrimental to the public interest. If the individual belonging to the minority, when a law is enacted which he feels is unjust, will bow his head and say, "I will obey that law today, but tomorrow I will go out and start a movement for its repeal," there will be developed an inspiration and a power whereby even the humblest hod carrier shall have the same right as the highest citizen in the United States. And then I want to get it into the hearts of men a realization of the fact that a republic cannot live except as its laws are obeyed. You cannot have rebellion against the will of the majority and at the same time have peace. Let men obey these laws, and then I would have them feel something of the real responsibility that they have in creating and enforcing them.

I tell you, friends, you have the power to hunt all around and pick out your teachers tomorrow. Who are they going to be? Are you going to leave it to the ministers of the churches? They can do a lot, but they cannot do as much with the men in overalls as the men here can do. Yes, I will tell you now that we cannot shift the responsibility to anybody else's shoulders. The men and women of this country who have been granted the privilege of an education and of culture, must be the teachers to transform the desert souls of these men and these unfortunates into a

blooming garden of flowers of the virtuous of this nation. We cannot shift our responsibilities—each and every one of us must help carry the burden. Have we learned in this war—have we learned—that a part of our life and substance and a part of our time belongs to the government under which we work and live, belongs to the brothers all around us who have not had the same chance in life that we have had? I tell you that we have got to get over the notion that we are living our own petty lives and that everything we make is for ourselves. We have got to pay back in some active, honest, earnest achievement for our fellow men something of what we owe to the world for the position of prominence that perhaps we have acquired through education and culture.

And so, my friends, we are living in a moment when the world calls upon us for earnest endeavor, and if we are going to be earnest, if we are going to carry the burdens that come to us in business, we must not forget the sacrifices of this great war. We must carry into this effort the spirit that was behind the boys as they fought their way to victory over there where the poppies grow.

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MEDICAL DEPARTMENT OF IOWA  
STATE UNIVERSITY AT IOWA  
CITY

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D. S. FAIRCHILD, M.D., F.A.C.S., Clinton

PART FOURTH

The history of the organization of the medical department of the State University at Iowa City has some intricate points that we have from several sources been in the main able to solve. As all the active participants are dead we have little fear of contradiction unless some one seeks the same sources of information, and places a different interpretation on the facts, which it will not be easy to do.

The medical department of the Iowa State University laid the first stone of its foundation December 7, 1848 when Dr. J. M. Vaughn and Mr. Stephen Whicher, an attorney, appeared before the board of trustees to present a statement of the "Condition and Wants of the Medical Faculty of the State of Iowa." It appears that on December 6 a convention of physicians was held in Iowa City to consider the organization of a medical department of the State University and requested that this voluntary organization be recognized as the medical department. The convention that met on December 6 left no record of its proceedings or agreements, only the records

show that on the following day, December 7, the "Convention" was represented before the board of trustees by a physician and a lawyer to make certain arrangements with the board concerning a medical department without any claim on the funds of the university. It is a peculiarity of university trustees to be generous to professional men who will give valuable services when there is no money consideration, in sight at least.

In January, 1849, a block of land was donated by the legislature to the medical department on condition that within two years the faculty and officers erect a building thereon at a cost of not less than \$1,000. No steps were taken to organize a medical school at Iowa City, beyond a movement to unite with the State University by designating seven of the gentlemen representing the "Convention" as members of the faculty by the board of trustees, all but one of these instructors had already been designated. It was provided that these acting together should constitute the medical faculty and were empowered to fill vacancies and arrange the details of administration. It was further provided that the expenses of this organization should not be a charge on the funds of the university and that such reports as the board might demand should be promptly submitted following the opening of the first course of lectures which, as authorized, was to begin on the first Monday in November, 1849, and to continue for a period of sixteen weeks, but no medical school appeared in Iowa City.

The facts were, that the "Convention" of physicians seeking to organize a medical school as a department of the State University represented the faculty of the College of Physicians and Surgeons of the Upper Mississippi, then located at Davenport, but the next year, 1850, moved to Keokuk to become the College of Physicians and Surgeons of Keokuk. The purpose was to secure recognition as the medical department of the State University and not to organize a medical school at Iowa City, as is shown by the appearance of the same Mr. Whicher before the board of trustees with a memorial requesting the recognition of the College of Physicians and Surgeons at Davenport as the medical department of the Iowa State University. The members of the faculty to retain the power of filling vacancies but subject to the approval of the university trustees.

The constitution of 1857 permanently established the university and all branches and departments at Iowa City, nevertheless the College of Physicians and Surgeons of Keokuk, claimed to be and was generally recognized as the medical department of the State University until 1870

when the medical department was organized at Iowa City. The constitutional difficulties were recognized by the Keokuk school and in 1858 the faculty presented a memorial to the legislature then in session "requesting an interpretation of the relations of that institution to the State University under the provisions of the new constitution." The memorial was submitted to the judiciary and the opinion was, "that although all appropriations of funds from university resources were clearly to be confined to the one institution at Iowa City, it was not believed that the medical department at Keokuk was cut off from all connection with it. Since it had been so connected for about eight years and was a recognized department at the time the constitution was adopted, and since there was no specific provision severing its connection with the same, nothing seemed to prevent its continued nominal connection and no further legislation was needed to define its relation."

During the session of the legislature that fixed the status of the Keokuk school a loan of \$15,000 was secured from the common school fund for the institution. The loan was originally fourteen years. An inquiry made by the legislature of 1879 showed that no part of the \$15,000 had been paid. Suit was instituted and judgment obtained in Lee county against the Keokuk Medical College with a loss to the state of \$10,000 and interest on \$15,000 for thirteen years.

The first attempt to organize a medical department for the Iowa State University in December, 1848, was in fact, in the interest of the school which arranged to hold its 1849 session at Davenport and in 1850 at Keokuk. During the twenty years following, efforts were made from time to time, to secure permanent recognition by the state and to secure appropriations of money. About \$20,000 in all was appropriated and at last, when it was discovered that the legislature had given money unlawfully, an attempt was made to recover the \$15,000 borrowed from the common school fund, about \$5,000 was recovered by suit. The bill granting \$5,000 in 1848 from the sale of land granted by Congress for university purposes was vetoed by Governor Grimes. An attempt to pass the bill over the governor's veto failed by a vote of 32 to 27, 8 less than the constitutional requirement.

In 1868 Dr. W. F. Peck appeared before the board of trustees in the interest of a new school to be located in Iowa City. This was the beginning of the present medical department of the State University. Final arrangements for organization were made in 1869.

Old South Hall then occupied by Professor

Parvin as a residence was remodeled by an expenditure of \$3,000 for the use of the medical school. The school was opened in 1870. The fees were fixed at \$80 for lectures, \$5 for matriculation and \$30 for graduation. An effort was made in the legislature to abolish the new medical department. The senate passed the bill but was indefinitely postponed in the house. When the Regents took up the final arrangements it was proposed to suspend the medical department for the reason that its continuance would not be to the advantage of the University, but the movement was defeated by a margin of one vote.

Before the adjournment of the 1870 session another attempt was made to postpone opening of the medical school, for the reason that it would require a large sum of money and that adequate accommodations could not be secured. Four of the nine Regents believed that a medical department would be contrary to public demand, and that the expense of equipment would be against the best interests of the University. Many reasons were urged in favor of postponing the organization of the school. Notwithstanding the objections offered by the legislature and the Board of Regents the school was opened in 1870 under discouraging conditions.

The faculty was organized by establishing seven chairs, each chair to be filled by an instructor who should depend for compensation and expenses upon the fees paid by students. The following June a resolution was presented to the Board of Regents declaring; "that in as much as the medical department had been struggling along throughout the previous year without means of support, it was not expedient to continue it; and although it was recognized as having done remarkably well, under the circumstances it was recommended that the work be suspended until the legislature should make suitable appropriations for that specific purpose."

With our present day views of medical schools the wisdom of such a proposal would not be challenged, but at the time when the Iowa City school was struggling for an existence, a few professors, a few benches and a roof was felt sufficient for a beginning. We can in this struggle see afar the hand of the able Keokuk group.

In June, 1872, \$500 was appropriated by the Regents for a department library. It was not until March, 1873, that any provision was made for a hospital. It was proposed to turn over the Old Mechanics Hall for hospital purposes providing the faculty would bear the expense without help from the University. Seventy students attended the 1872-73 session.

The legislature manifested small interest in the department and had it not been for the earnest work and sacrifice on the part of the faculty the school would not have been continued. In 1875 the school made an effort to secure recognition from the Royal College of England but recognition was made to depend upon the character of the entrance literary requirements and the Iowa City school could not qualify. Notwithstanding the efforts of Professors Peck, Schrader, Clapp and Henrich no entrance examination requirements had been made and no better accommodations could be secured. It was not until 1879-1880 that a preliminary entrance requirement was published.

The regular course of lectures began in October and extended to the holiday vacation, called the fall term. The winter term ended in March, or twenty weeks of school work including lectures. The students were required to take two such courses of lectures or forty weeks altogether for the degree of Doctor of Medicine. These were the requirements generally in force everywhere in the United States. There being no legal standards in force fixing the educational requirements for the practice of medicine there was free commercial competition among the medical schools throughout the country. If the doctor was not an educated man in those days the fault was not altogether his.

In 1876-1877 an optional three years' course was urged but the movement was thought premature.

In 1882 the legislature granted the first appropriation to erect buildings for the accommodation of the medical department; up to that time the medical school had occupied Old South Hall previously referred to.

The courses of lectures as established in 1876 continued in force until 1889-1890 when the courses were extended to three years of six months each. There was established the junior, middle and senior years and an entrance examination in certain specific subjects of an English education unless the candidate held a degree from some college or secondary school.

It now became apparent that increased hospital facilities were of paramount importance and in 1887 a propaganda was started to secure an appropriation for the construction of a University Hospital. In 1890 some relief came from an enlargement of Mercy Hospital. But the idea of a University Hospital was never lost sight of and after many years and at various periods the present excellent hospital was completed and equipped.

In response to an increasing demand for better

training of medical students, the medical department, beginning with the session of 1891-1892, the course of instruction was again extended by requiring four years, one with a preceptor and three years of six months each in college. In 1896 the college course was increased to three years of eight months each and one year under the direction of a practitioner. In 1901 it was announced that the course would soon be extended to four years of thirty-six weeks each.

The question of better preliminary training for the study of medicine began to be agitated by medical teachers and in 1901 the admission qualifications to the medical department of Iowa State University included three years of secondary work from an accredited school, provided the course included one year of Latin. This was extended to a full high school course and in 1909 to one additional year in college and in 1910 it was provided that a student entering on a medical course should be required to take two years in college following a four years high school course.

We have thus briefly outlined the inception and growth of the medical department of the Iowa State University. We have pointed out the skillful maneuvering of a private medical school to secure recognition and financial support and the equally skillful management of Dr. W. F. Peck and his associates in securing the organization of the Iowa City school. It is indeed, to be regretted that none of the first faculty lived to see the fruits of their early efforts and sacrifices. It was not given them to know that the department, frowned upon by the legislature and even looked upon with suspicion by a strong influence in the board of regents; with a course of study which included only two courses of lectures of twenty weeks each; lodged in a faculty private residence vacated for the purpose, and persistently refused essential appropriations in its most trying years, should in a generation become a strong and fully equipped medical college of the most approved type.

(We have in many respects followed Vol. IV, *Annals' History of Education in Iowa* published by the State Historical Society.)

#### THE PROPHYLACTIC AND SYMPTOMATIC TREATMENT IN ECLAMPSIA\*

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In introducing the foregoing subject I wish to make no close distinction between the two mentioned forms of treatment. I regard prophylactic

treatment as treatment aimed at preventing the appearance of symptoms, and symptomatic treatment, as the word specifies, being aimed at the alleviation of symptoms which are already present.

Eclampsia is definitely a symptom complex or condition that occurs in pregnant women. It consists in a rise in blood-pressure with albuminuria, dilatation of the pupils and then convulsions with of course other associated symptoms. It may occur early or late in the pregnancy and treatment is definitely an effort to ameliorate the symptoms.

The etiology of the above symptom complex is not known, there are various causes listed by the writers on the subject. Halbertsma believed that it was due to compression of the ureters by the uterus. At one time bacteria were thought to be the cause and various experimenters theorized on this phase of the subject; i. e., its febrile nature, the fact that it may follow an attack of tonsillitis and that it occurs in cold or damp weather. Stroganow believes it to be an infection introduced through the lungs. Albert and Muller believed the infection in the genitals. In 1887 Bouchard broke new ground when he advanced the theory that eclampsia results from the accumulation of retained waste which the emunctories have failed to give off. Along the same line Riviere believed that an overproduction of toxins occurred during pregnancy as shown by the hyperemia of kidneys and liver with poison to the former. Some investigators have considered the thyroid gland as a causative factor, also the parathyroids, ovaries and corpus luteum and mammae. Some authors have held that eclampsia is a form of anaphylaxis due to some toxin retained in the placenta or fetus. Since Rayner and Lever in 1843 found the presence of albumin in the urine of eclamptics, and later students have found indications of a nephritis the idea gained ground that eclampsia was allied to uraemia and was a nephritic condition primarily. Ingerslay and Charpentier have found 250 cases in the literature however without albuminuria and yet all the symptoms of eclampsia.

The first indication of an eclampsia is a rise in blood-pressure (see Condit—*Ill. Med. Journal*, Dec., 1917), the other symptoms coming on later; such as lack of ability of patient to concentrate or think, trace of albumen, hyaline casts, excess of indican and a diminished total urea output with urobilin and urobilinogen in the urine. (Davies, A. J. *Ob. Jan.*, 1918-62). This coupled with the fact that cases of eclampsia have occurred without albuminuria tend to disprove the renal origin of eclampsia. Renal insufficiency

\*Read before the Northwestern Iowa Medical Association, at Sheldon, April 30, 1919.

would show albumen along with the high blood-pressure or preceding it. The high blood-pressure could then be explained as being really a secondary symptom due to primary changes in the kidney. On the other hand, if there was a primary nephritis then we would expect to find an albuminuria appearing as the pregnancy advanced, indicating the overworked condition of the insufficient kidney parenchyma. Secondly we can imagine then a damming back of the excessive products of the gravidæ which we suppose puts an extra burden upon the kidneys at this time. As I have mentioned before, some have thought it to be a poison or a toxin that is produced during the pregnancy and which in some women is produced either in such large quantities that the normal kidney cannot take care of it all or else, that in some women, we recognize a small margin of kidney function over and above the normal. If the toxæmia idea were correct we should expect to find a nephrosis of the kidney as described by Vollhart and Farr in their classification of kidney diseases without necessarily any noticeable change in the blood-pressure. This however, is not the case, as I have said before, since hypertension is the first warning of an approaching eclampsia, and not albuminuria. Either we are dealing with some special form of toxemia that affects blood-pressure as well as kidneys, or else that it causes hypertension then secondarily albuminuria. The overproduction of a toxin that overwhelms the kidney with work from a merely mechanical standpoint, might explain the changes from the normal in body tissues and fluids during eclampsia, while the effort of the body to expell this poison might explain the higher tension. A very pretty bit of work has been reported by Erwin in J. Am. M. A. on blood-pressure in eclampsia, and he decides that a convulsion is the result of an intracranial pressure that is higher than the peripheral blood-pressure, resulting in anemia of the brain with the convulsion merely an exhaustive effort on the part of the body to re-establish the circulation by a general higher tonicity. If, as Dr. Erwin goes on, there is in the blood a chemical or toxin that produces the convulsions, does the convulsion stop because of the disappearance of that concentration that caused the convulsion? It is easier to suppose that the convulsion is relieved by overcoming the anemia in the brain by raising the blood-pressure through peripheral contraction than that peripheral contraction will eliminate the toxins so as to relieve the convulsion. Thus in eclampsia, we get an early rise in blood-pressure higher than the intracranial, if this be so, then something is producing

a higher intra-cranial pressure. Is it the effect of some chemical or toxin acting on the arterioles of the brain greater than elsewhere, or congestion of the brain from mechanical causes, or is the rise in peripheral blood-pressure merely an attempt on the part of the body to eliminate through the avenues of elimination some toxin which has found its way into the blood, or is collecting in the tissues?

The above is a question which has never been settled. This much we do know, that we find evidence of edema and congestion of the brain, edema of the tissues, edema and congestion of liver and kidneys with subsequent albuminoid degeneration. Is the albuminoid degeneration due to a toxemia in the kidneys also?

Pfeiffer, writing in the Journal of Obstetrics and Gynecology differentiates between a hepatic and a nephritic form of eclampsia, the former often being the cause of the latter. Owing to the kidney changes we are justified in assuming that we are dealing with the retention of products of foetal and maternal metabolism. It was once thought that in eclampsia the urea circulating in the body became hydrated and formed ammonium carbonate, which produced the convulsions. Others thought it was due to a retention of creatin and creatinin acting on the cerebral cortex. As I mentioned before Halbertsma believed that the gravid uterus pressed upon the ureters; causing the characteristic eclamptic seizures. I have had a case in my practice, wherein the patient had carcinoma of the uterus which by extension occluded both ureters. In this case there was observed the characteristic uræmic convulsions during twenty hours before death supervened. Clinically, it would have been impossible to distinguish these convulsions from the convulsions of child bed.

With then the uncertainty existing among medical men as to the real cause of eclampsia, our treatment might be said to be more or less directed at the individual and of an experimental nature. This is so, and appears to be considered the case by most of our obstetricians at the present time. I find that most men agree that each case of eclampsia is a case by itself and must be treated as such. Schmidt says, "It is more than a mere coincidence that six women succumbed to eclampsia in my service in 1912, while only three in seventeen died during 1911, although all were treated on the same principles." In view of this fact then, it is well for the reader to bear in mind that while laying down a system of treatment as in the following pages, that it can serve only to emphasize the necessity of individual effort on the part of the attending physician to adapt the

treatment to the case in hand.

Since I am dealing with prophylaxis, I wish so far as possible to refrain from the consideration of the actual eclamptic convulsions.

Here is in brief the treatment which is outlined by Stroganoff. He places the patient in a quiet room, plugs her ears with cotton, does not allow the members of the family entrance or conversation with the woman, the diet is regulated and the meats are cut down as much as possible. His medication is as follows:

Morphine chloride, 0.015 gm. After one hour 2 gm. chloral hydrate. In another two hours he gives 0.015 grms. of morphine chloride, again in four hours another two grams of chloral hydrate and in six hours 1.5 gm. of chloral hydrate and in eight hours 1.5 gm. of chloral hydrate. The above medication is directed at the control of blood-pressure and also purposes to help quiet the patient. Further, Stroganoff encourages elimination by all the natural channels, by the skin, kidneys, bowels, and gives the patient large amounts of fluid by mouth, by rectum, subcutaneously and intravenously of plain water or normal saline in the latter cases. Sodium bicarbonate is also beneficial and has the further effect that it overcomes the persistent acidosis present in eclampsia.

Reduction of blood-pressure may also be aided by the administration of veratrum viride, from 10-15 minims of the tincture hypodermatically, and it gives more immediate relief than the method of Stroganoff, but may be supplemented by his medical treatment.

McPherson outlines a treatment which he has used. Writing in the *Am. Journal of Obstetrics*, Jan., 1918, p. 59, he says, "First watch the blood-pressure and urine for indications in treatment. Give per hypo one-half grain of morphine sulphate, wash out the stomach and while lavage tube is still in place let two ounces of castor oil run down the lavage tube. Irrigate the colon with five gallons of 5 per cent. glucose. If the blood-pressure is above 175 mm. do a phlebotomy, but care should be used here and not take out too much blood since the loss of blood at this time cumulating would cause trouble possibly and has in the past. Keep the patient quiet, give her one-fourth grain of morphine hourly till respiration drop to eight per minute."

Davies suggests complete rest in bed especially during the pre-eclamptic state, keep patient on a milk diet absolutely (water to three quarts in twenty-four hours) and give daily hot baths and colonic irrigations; saline cathartics, preferably magnesium sulphate and sodium bicarbonate solution. The latter is for heart burn and acid indigestion. Keep up above for one week or so,

let the patient up slowly adding cereals, eggs and nitrogenous foods.

From our previous considerations as to the cause of eclampsia and from the foregoing recommended treatments it can readily be seen that treatment is directed at those organs which are producing the symptoms as nephritis, jaundice, blindness, headache, pulmonary edema, infarcts in the placenta and convulsions with death of fetus in utero and also directed at the blood stream which is thought to carry the toxins causing the conditions. Dr. Condit says, "If..... prophylactic treatment be carried out faithfully the medical therapy will be simple enough as the symptoms and conditions will be of such mild character as to require only correction of diet, rest in bed for a time and the increasing of elimination through the natural channels, namely, bowels, skin and kidneys."

I have had some experience with eclampsia and it is my experience that medical treatment can be relied upon to bring improvement in the great majority of cases, and where it is not successful the operative treatment almost always fails. The morphine treatment has too many disadvantages, it produces edema of the lungs, it increases the coma, it increases infant mortality. My experience with anesthetics has also been bad, asphyxia may be produced thereby. Both for prophylactic and curative treatment, I found the hot pack very good. In a prophylactic way I can also recommend Tr. digitalis where the heart is rapid and lacking in force. For the convulsions there is nothing quite as good as Tr. veratrum viride when prophylactic treatment fails and symptomatic treatment must be instituted against the convulsions, give in 1 cc. dose hypodermically at hourly intervals till the pulse rate is reduced to 50 or below; labor may always be hastened where necessary but a conservative treatment in an attempt to avoid radical measures is the best procedure.

In looking over some of my cases I find the following, and note that after the first few I discarded all methods excepting the hot pack as a prophylactic, and the veratrum viride as a treatment.

**Case 1.** Mrs. W. R.—Primipara—Baby born at end of eight months. Four hours after, patient had first convulsion. Before I reached the bedside several more. I gave Tr. veratrum viride by the mouth, without any effect. Then I used morphine in half grain doses hypodermatically, and chloroform inhalations to abort the convulsions. The convulsions seemed to lessen in severity and frequency and after twelve hours ceased altogether. She recovered fully. She

was almost asphyxiated as a result of using the chloroform. This patient had three children afterwards without any indications of convulsions.

**Case 2.** Mrs. T. H.—Primipara—Has had a nephritis complicating a scarlatina. She was subject to severe headaches which became much worse in the course of her pregnancy. Near the end of the seventh month she suffered from epigastric pains, nausea, vomiting, severe headache and severe pain in the back of the neck. Her urine was scanty, and contained much albumin. Twelve hours later convulsions ensued and to relieve these one-half grain of morphine sulphate was given immediately and repeated in an hour. After the first dose of morphine she was given a hot pack and kept there till she perspired profusely. Much of the edema disappeared under this treatment and no further convulsions occurred. Labor came on next day and was normal. The baby was dead born. In a later pregnancy this patient was placed in hot packs twice weekly, beginning on the appearance of edema, till the termination of the pregnancy. She had no convulsions and was delivered of a healthy boy at term. She has since been pregnant several times and in each case I understand it was a repetition of the first time. Nineteen years after the delivery of the first baby, she died of chronic interstitial nephritis.

**Case 3.** Mrs. B. A.—Primipara—Towards the end of pregnancy she had large amounts of albumin in her urine. Casts were also present. She was given Tr. digitalis and Tr. nux vomica and daily doses of epsom salts. Labor set in at term and was very tedious. As there was considerable edema and convulsions were feared a hot pack was made ready. Just as the head passed the cervix and descended into the pelvis she had her first convulsion, and one-half grains of morphine was given hypodermatically. Ether was administered and the baby delivered instrumentally. During this time she had three more convulsions. After the delivery of baby and placenta she was put into the hot pack and kept there till perspiration had become free. She had one more convulsion. Mother and baby later did well except that the mother did not entirely recover from the nephritis. Eventually it became a chronic interstitial nephritis and caused her death about ten years subsequently.

**Case 4.** Mrs. T. W.—Multipara—Chronic interstitial nephritis complicating pregnancy. In the last month of her pregnancy albumin was found in the urine in large amounts, and edema was considerable. However, she had no convulsions until after labor had set in, for which attacks one-half grain morphine was given by hypo hourly for three hours. After the baby was born (by aid of instruments) she had no more convulsions. The baby was still born. The mother developed insanity during her puerperium from which she never recovered. She died sixteen years later from chronic interstitial nephritis.

**Case 5.** Mrs. O. C. H.—Had eclampsia on two previous occasions. She began to have large quantities of albumin about the end of the sixth month

and developed edema. Treatment consisted in hot packs twice weekly for a half hour each after sweating stage was attained, and Tr. digitalis and nux vomica when indicated. The edema disappeared and with it much of the albuminuria. The packs were continued till labor set in. Labor was normal in every respect, and both mother and baby did well.

**Case 6.** Mrs. P. W.—Multipara—This patient, in a previous pregnancy, suffered from albuminuria and edema, besides having hemorrhages in the retinal vessels. One eye was permanently damaged, and only retains half normal vision. She had eclampsia and lost this baby still born near term. Urine examinations were made weekly, some times more frequently, and traces of albumin and a few casts were found. In the latter part of the seventh month the albumin became plentiful and the casts increased in number. Blood corpuscles were plentiful and then there was oliguria, then edema. Hot packs were ordered twice weekly, with Tr. digitalis. To this treatment she responded till about the middle of the ninth month. At this time all the symptoms returned with great severity. She suffered from severe headache, nausea, vomiting and epigastric pain. She had excruciating pain in the back of the neck and her vision was affected. Hot packs were ordered again; but before they could be administered, she had an eclamptic attack. She was immediately given 15 minims Tr. veratrum viride, and in half an hour her pulse had gone down from 150 to 60 per minute. Labor was commencing, and the membranes were ruptured to hasten same. In seven hours the baby was born, both mother and child did well. Gradually the vision of this patient was restored to its former state.

**Case 7.** Mrs. R. B.—Primipara—At eight months she presented herself and was found to have large amounts of albumin in the urine. She was dropsical to an extreme degree. She received hot packs twice weekly and was given Tr. digitalis in 15 min. doses three times daily. The hot packs were not given very regularly and as she was twelve miles from my office I did not see her again till called on account of eclampsia. There were three attacks before I reached the bed side. She received two doses of Tr. veratr. viride an hour apart, each time 1 cc. The convulsions ceased for twelve hours. In the meantime labor had set in, and just as the baby descended into the pelvis she had convulsions again. The delivery was effected by forceps, and just as the head was being delivered she had another eclamptic seizure. In the course of the next three hours she had two more attacks. She was put into a hot pack, and after free diaphoresis she gradually recovered consciousness. The baby was dead born. About a year afterward she became pregnant again, without edema, albumin in the urine or eclampsia. The baby was born at full term, and lived.

**Case 8.** Mrs. C. DeG.—When she was seven months along she presented herself for treatment on account of the great amount of edema of feet, legs and thighs, and the vulva. The lips of the vulva

were so distended as to be translucent, and swollen till they were half as large as a small infant's head. Urine was full of albumin. Hot packs daily till the edema was practically all relieved. Then they were given twice weekly. *Tr. digitalis* 1 cc. three times daily. Labor at full term. No convulsions. Baby healthy.

**Case 9.** Mrs. P. H.—At seven and one-half months she had influenza. After the acute stage was passed, it was noticed that she became edematous, with albumin in urine and a blood-pressure of 160 mm. She was treated as before by hot pack and *Tr. digitalis*, and the edema quickly disappeared. The baby was born at full term, mother and child doing well. No eclampsia.

In view of the results achieved in these cases it would indicate that the primary treatment for an eclamptic state should be aimed at elimination and this treatment should be begun when the first indication of toxemia makes its appearance. Good results from the hot pack were obtained in each of the above cases. Case 5, 8 and 9 are beautiful examples of the efficacy of the hot pack.

Whether the hot pack has any effect on the blood-pressure or not, it seems to relieve the pressure upon the kidney and in so doing overcomes the edema and possibly eliminates the irritating toxin through the skin. It certainly takes a lot of liquids out of the system and the circulation, if properly applied one thorough treatment will have a noticeable effect upon the edema. Having no other explanation we must assume that the high blood-pressure is due to toxemia which acts in some way upon the blood-vessels as well as producing a nephrosis of the kidneys. Whether the action is greater on the blood-vessels in the brain than on the peripheral vessels can not be ascertained, whether Dr. Erwin's idea that the convulsions are due to edema of the brain, occurring when the peripheral blood-pressure gets lower than the intracranial, we are not convinced. Suffice it to say that the convulsions appear to be controlled with *Tr. veratrum viride* and the pulse rate goes down markedly. And the *Tr. veratrum* seems to have no bad after effects. Unfortunately blood-pressure findings were not had excepting a few times when the patient was at the office, and that only in the later cases. With the fall in the pulse it is reasonable to suppose that there is also a drop in the blood-pressure. We must assume that this drop is as effectual intracranially as peripherally or Erwin's scheme falls through. At any rate, we know that the thing producing the convulsions is retarded by methods of elimination. Thus we establish the first principle of our treatment—elimination which is decidedly a prophylactic measure. The

second principle is the control of the convulsions when the prophylaxis has failed. A glance at the results obtained in the cases cited will show that the *Tr. veratrum viride* is the best. That the morphine was attended with danger to the infant as well as the anesthesia with danger to the patient. Our last resort of forcible delivery of the infant is withheld as long as possible and as long as it is compatible with the safety of the mother and then what method of procedure is used will depend on the patient and such conditions surrounding the case as may indicate the necessary action. Whether an instrumental delivery, or Cæsarean section, the probability for delivering a viable foetus are nil and all efforts of the accoucheur should be directed to the mother.

Again I wish to call attention to the diet in early treatment and the milk diet suggested by Davies and given previously should be very good. After the elimination has been accomplished it is not necessary to diet the patients any longer, in fact it is advisable to give them a mixed diet, as they will do better under those conditions.

#### RESUME

In view of the cases which I have described and of other similar cases occurring in my experience; and in view of a lack of evidence supporting any definite conclusions from the experience of others, I should like to offer the following suggestions:

1. If a toxin is the cause of eclampsia, it is not necessarily one of a special nature, but conceivably is a super-accumulation in the tissues of the ordinary toxic products of metabolism.

2. In the pre-eclamptic state there is a failure on the part of the organism to eliminate the excess of toxic products, and the failure may be due to one or both of the following causes:

- a. Chronic nephritis. In this type we may expect recurrence of eclamptic symptoms with each pregnancy.

- b. An insufficient margin of elimination in either a normal or diseased kidney. If it is the former condition, we may or may not expect a recurrence of eclamptic symptoms in succeeding pregnancies, depending chiefly upon the use or non-use of prophylactic treatment. This form shows the most brilliant results of prophylactic treatment.

3. As a prophylactic measure, overcome deficient elimination through the kidneys by using another organ, the skin, which, as is well known, has the power of eliminating the same toxic products that the kidney eliminates. This can be accomplished by an intelligent use of the hot pack, combined with the internal administration of

tincture of digitalis, for general circulatory support or for possible eliminative aid by improvement of the local circulation through the kidney.

4. When symptomatic treatment is indicated, the tincture of veratrum viride is a drug whose whole value should not be regarded lightly.

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### THE USE OF COCAINE IN THE TREATMENT OF KERATITIS

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I have had my attention so frequently and forcibly, called to the evils of the use of cocaine in the treatment of the cornea, that I am impelled to write a caution to the profession regarding it.

Having been lately called to a typical case, I will cite it for a text: A year ago last July a ranchman during his wheat harvest, wounded his eye with a stem or straw. He did not go to the oculist until four days had passed, not wishing to leave his work. Under cocaine the doctor removed a foreign body. The patient having some pain and redness the doctor prescribed cocaine, compounded with two or three other remedies, which relieved the pain, but after three or four days he went again to the doctor who continued the instillation of cocaine. The ulcer did not heal. After three or four visits, the doctor told him he must cauterize, which he did with an electric wire (actual cautery), where upon the ulcer healed, but the burning caused a spot right over the pupil, and he could not read common print with that eye, nor could I get a view of the retina with the ophthalmoscope. This was after the recovery of the eye from redness. I treated him with the purpose of absorbing as much of the opacity as I could, but was unable to clear it completely.

This case called to mind my long time conviction as to the consequences of wounds of the cornea, and I concluded that I would give my ex-

perience and convictions of forty-five years treatment of ulcers of the cornea in Iowa to the readers of the Journal.

A large number of cases of trachoma fell into my hands in the seventies and many of them had corneal complications, and at times I felt baffled in this dangerous condition. So I took particular notice of the way they handled corneal troubles in the Royal London Ophthalmic Hospital in 1872, where they have a higher percentage of corneal breakdown in this disease than there is in America. This was long before cocaine was used in the eye. To remove a foreign body from the cornea we had to administer general anesthetics.

On my return, I soon worked out my code in the treatment of corneal ulcers.

In the cases requiring "irritants" for the conjunctiva, one must beware of inflammation of the cornea setting in, indicated by aching pain, intolerance of light and on close inspection (sometimes requiring a magnifying glass to see it), a small dimple will be found in the center of the cornea, or nearly so. In the case of ophthalmia-neonatorum the use of the nitrate of silver must be stopped immediately on the appearance of the ulcer, and here is a temptation to use cocaine. I have relied upon the following collyria, which I have used as a soothing and later as an antiseptic during my whole career, which idea was taken from Mackenzie's great work, although not being exactly his formula:  $\mathcal{R}$  hydarg. chlo. cor. grs. one, murate of ammonia grs. vi, aqueous ext. opmi. one dram., aquae distil. six ounces. m. sig. One teaspoonful to a tablespoonful of hot water and bathe eye. When the untoward symptoms subside, a further use of nitrate of silver can be continued.

A surgeon will appreciate how well Dr. Mackenzie was practicing asepsis, though empirically, in that early day.

When we have an ulcer of the cornea to deal with, either when after cleaning it and washing it with washes, it shows raggedness only, or as in suppuration, remedies such as iodoform or calomel may be used together with the collyria set above. Curetting the cavity of the ulcer is sometimes very satisfactory. If after two or three days it shows a tendency to supurate, hot water lotion with a teaspoonful of ext. of belladonna to a pint, must be continuously applied with a patch the size of a dollar, three thicknesses, one in the water while another is on the eye, with the patient prone in bed, and the patches interchanged every five minutes, for from one to three hours, according to the purulent condition; generally commencing at early bed time, after which the patient is allowed to sleep; a hypodermic of mor-

phine is sometimes needed. This bath should be kept to that temperature, by an alcohol lamp under the pan that the nurse is just able to ring out the patch.

If in the morning, the ulcer does not show a decided improvement and the purulent condition still remains, paracentesis is positively indicated. Sometimes, however, there is a great improvement and the pus is perfectly absorbed, even to a deep hypopyum. With this encouragement, a like treatment may be given the next evening—shorter in duration.

The condition of the eye in this inflammation of the cornea, should be considered thus: The cornea is a transparent membrane of many layers; in health there are no blood-vessels in it, getting its sustenance from a congerie of vessels at its periphery, (limbus); lymph is thus percolated into it. When inflammation occurs, the blood-vessels of the ciliary body cause an increase of the fluids within the eye and there is increase of intra-ocular pressure, and this pressure prevents the lymph entering the cornea. The ulcerative condition is not very old before nature will send a vessel across the cornea to the ulcer in its center.

The use of fomentations promotes the flow of blood about the cornea, absorbs the pus and heals the ulcer. If morphine is ineffective to allay pain, it may be concluded that it is because of intra-ocular pressure.

We can see by this argument, why cocaine is deleterious. Cocaine numbs the sensibility and gives ease for a few minutes from the pain, but also dries up the secretion of the tear gland, and other secretions of the conjunctiva, and is one of those remedies that is deceptive of good, and does as much mischief in bringing ruin to the organ as it is soothing in its effect. It is sad to think that relief of pain and ease must be at such a cost.

The reasoning on which I base this conclusion is this: Cocaine blanches the membranes of the outer layers of the eye by driving the blood away, and some authors say paralyzes some of the system of nerves. If this is wholly, or in part true, how is it that it has become so fashionable to pipet this remedy to such an extent.

I am astonished at the number of "authorities," written since the introduction of this beautiful remedy in ophthalmology, when applied correctly, should be so universally at fault. Of ten authorities written since cocaine has been discovered, none refer to the fact that it drives back the blood from the cornea and starves it to death.

I practiced twelve years without this remedy, and when introduced I soon concluded that it did

not belong to the armamentarium for keratitis. I would not use it any more than I would poultices or sugar of lead on which practice I made war for years.

I never cauterize a corneal ulcer, either. The practice of this is also damnable! The albugo produced by sugar of lead is said to be from coagulation of the albumen of the cornea; cautery by hot wire or silver nitrate, does not make so white an opacity, but I lay it down most emphatically that both remedies coagulate the albumen of the tissues, producing an indelible spot, which is called nebula, and it usually being over the pupil, damages the vision or makes blind; often I fear a destruction of the eye, and all this by this syren in ophthalmology.

An ulcer healing without this cauterization, often leaves an opacity, but it is amenable to treatment and can be cleared up almost wholly if not completely.

The operation of paracentesis is a delicate one, and of course must not be attempted by any one without a full knowledge of its technic.

The removal of the aqueous gives immediate relief, and an ulcer that has not suppured, that resists other treatment for a long time, will heal in three or four days. Occasionally this operation has to be repeated.

*Case*—A young woman from a neighboring town had been suffering from a non-suppurating ulcer in the center of the cornea. The ulcer refused to heal when I suggested paracentesis. It was done under an anesthetic. In four days she was well and went home. After a few weeks she returned with an ulcer on the cornea. She had passed through sickness and abortion and was very much debilitated. She asked that that operation be made, and in about the same time as before the ulcer healed.

When cocaine was introduced I attempted to perform this operation under its influence, and found that, although it prevented the pain from the knife, it did not prevent the extreme pain that followed from the sudden taking off the intra-ocular pressure. This pain is extremely severe, but of short duration, and I have insisted on the use of chloroform. I have seen somewhere, this operation performed by letting but a few drops off at first, and in a few seconds a little more and so giving time for the equilibrium of pressure to be gradually restored in the new condition. But I found that it was dangerous, in that more water might be let off than was intended, and the patient moving might throw the point of the knife onto the lens, for in this method the knife stays in the incision as a spicket to dam the water to be let off a little at a time.

The paracentesis should not be put off until the suppuration has progressed so that there is danger of perforation, as is directed by some authors. I perform it as soon as I find the hot fomentations do not cause the pus to be absorbed.

Another error advocated by some authors, is to put on a "pressure bandage." This to my mind is adding deleterious squeezing of the cornea.

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## ILLITERACY IN THE UNITED STATES

Eight and a half million persons in the United States over ten years of age can not read a newspaper, billboard, car card, sign, booklet or letter in the American language. Five and a half million of them can not read anything in any language.

These astounding facts demand the immediate consideration of the nation. The war has demonstrated some of the dangers from large numbers of foreign born persons who have not been assimilated or Americanized. It has also brought to light thousands upon thousands of native born Americans who can not read or write.

These illiterates and aliens outnumber all the people in Nevada, Wyoming, Delaware, Arizona, Idaho, Mississippi, Vermont, Rhode Island, North Dakota, South Dakota, Oregon, Maine, Florida, Connecticut and Washington combined. They exceed the total population of the Dominion of Canada. As voters, their ballots will outweigh the influence of greater New York, Philadelphia and Chicago in national affairs.

Such people must be educated at least sufficiently to read the Constitution of the United States and American newspapers and to know something of what it means to be an American.

This problem is national. The South leads in illiterates. The North leads in non-English speaking. Seventeen and one-fourth per cent. of the people of the East South Central states are illiterate, but 15.8 per cent. of the people in Passaic, New Jersey, can not read, speak or write English. Sixteen per cent. of the people of the South Atlantic states are illiterate and so are 13.2 per cent. of the people of Lawrence and Fall River, Massachusetts.

These civic and economic "seconds" are beyond all help from printed warnings or advice in the English language. Their ignorance and inaccessibility to essential public information are constant drags upon progress.

The secretary of the interior has graphically painted the situation by the nationally accusatory questions he has asked in his recent letter to the president:

What should be said of a world-leading democracy wherein 10 per cent. of the adult population cannot read the laws which they are presumed to know?

What should be said of a democracy which sends an army to preach democracy wherein there was drafted out of the first 2,000,000 men a total of 200,000 men who could not read their orders or understand them when delivered, or read the letters sent them from home?

What should be said of a democracy which calls upon its citizens to consider the wisdom of forming a league of nations, of passing judgment upon a code which will insure the freedom of the seas, or of sacrificing the daily stint of wheat or meat for the benefit of the Roumanians or the Jugo-Slavs when 18 per cent. of the coming citizens of that democracy do not go to school!

What should be said of a democracy which permits tens of thousands of its native-born children to be taught American history in a foreign language—the Declaration of Independence and Lincoln's Gettysburg speech in German and other tongues.

What should be said of a democracy which permits men and women to work in masses where they seldom or never hear a word of English spoken?

Senator Hoke Smith has just introduced in the Senate and Honorable William B. Bankhead in the House, the Smith-Bankhead Americanization bill; Senate bill 5464, House bill 15402.

This bill directs the secretary of the interior through the Bureau of Education to cooperate with the several states in the education of the above mentioned peoples and in the preparation of teachers for the work.

The appropriations begin at once and end in 1925.

A state, to secure the money, acts through its chief school officer and shall not participate until it has required the instruction of illiterate and non-English speaking minors more than sixteen years of age, in the American language, for at least 200 hours per year.

Federal money shall be used only for salaries or training teachers and no Federal money shall be used for buildings or equipment or for support of religious or private schools.

Each state receives money in proportion to the number of her illiterates and persons unable to speak English as compared to the total number of such persons in the United States.

The other provisions of the act concern details of administration.

These 8,500,000 when taught to read will be an immense new market for every form of merchandise. They will mean 8,500,000 new readers of newspapers, periodicals, farm journals, books in general and advertisements of manufactured products. At present they can't make use of any product of the printer's labor. They can't read

even a moving picture title or a Victory loan poster.

The elimination of illiteracy means the elimination of falsified merchandise, and the reduction of cheating by manufacturers and retailers who rely upon illiterate groups for their main support. Secretary Lane has said:

It takes a brave and a very ambitious man to lift himself out of such an environment. Easily he becomes a victim to the shrewd, predatory padrone or boss. He falls into debt and becomes mortgaged to ignorance and squalor for years. His ideal of America has suffered a change. "And is this freedom?" he says to himself, as with tired back he bends to his work, without hope that the burden will be lighter tomorrow. He can not read the signs which warn him of danger. He can not read of the opportunities which city and country offer. In his own land perhaps he had no chance to learn in his own tongue. In this new land he is too tired, too hesitant to learn this strange, difficult tongue. Is it any wonder if to this dissatisfied stranger the voice of one who speaks to him in the language of home has authority and carries far? And if this voice preaches discontent and violent discontent, as the one sure path to better days, is it strange that he should listen? Who are the men who master this new world? Plainly the ones he knows, from whom he has suffered. Do these same men control everything; are there no sweet places of refuge? He can find no one to make him see the greater America. The whole of this continent is to him the cramped apartment, the dirty street, and the sweatshop or the factory. To the sweep of the great land and its many beckonings his eyes are closed. And in his isolation and ignorance and disappointment there is fruitful nesting place for all the hurtful microbes that attack society.

From every humanitarian and business viewpoint, it is of the utmost importance to all with messages, educational or commercial, that these eight and a half millions be taught at least sufficiently to read a poster or a newspaper. Every user of the printed word, writer, manufacturer, merchant and advertising man should immediately express his opinion, of the importance and immediacy of this legislation, to Congress.

The passage of the Smith-Bankhead Americanization bill depends entirely upon whether the following committees are sure that the sentiment of the people through the United States is back of the measure.

#### Education and Labor—Senate

Hoke Smith, of Georgia.  
 Claude A. Swanson, of Virginia.  
 Henry F. Hollis, of New Hampshire.  
 Henry F. Ashurst, of Arizona.  
 Andrieus A. Jones, of New Mexico.

Kenneth McKellar, of Tennessee.  
 William E. Borah, of Idaho.  
 Boies Penrose, of Pennsylvania.  
 Carroll S. Page, of Vermont.  
 George P. McLean, of Connecticut.  
 William S. Kenyon, of Iowa.

#### Education—House

William J. Sears, of Florida.  
 Benjamin C. Hilliard, of Colorado.  
 Horatio C. Claypool, of Ohio.  
 W. B. Bankhead, of Alabama.  
 Charles H. Brand, of Georgia.  
 Thomas L. Blanton, of Texas.  
 Jerome F. Donovan, of New York.  
 Caleb Powers, of Kentucky.  
 Horace M. Towner, of Iowa.  
 Edmund Platt, of New York.  
 Simeon D. Fess, of Ohio.  
 Frederick W. Dallinger, of Massachusetts.  
 Harry H. Pratt, of New York.  
 Albert H. Vestal, of Indiana.

Extracts from data relating to illiteracy in the drafted army supplied to the department of the interior by the Surgeon General's office.

The section of psychology has obtained information on illiteracy in the drafted army only incidentally as such information was necessary in determining which intelligence examination should be given. It had been found essential to develop one kind of psychological examination for those who could read and write English, and another kind of psychological examination for those who could not read and write English, and then to evolve procedures for distinguishing and separating these groups. However illiteracy may be defined, data regarding the relative proportion in which the two examinations were used give some indication of the extent of illiteracy in the army. Such data come from two sources (1) weekly statistical reports of the number and type of examinations given at each camp, and (2) reports from time to time of special statistical studies in camps where local demand had led to such studies.

1. **Weekly Statistical Reports**—For the psychological examination of the draft, two types of group examination were used: Examination Alpha, which demands a reading knowledge of English, and Examination Beta, which was especially planned for foreign and illiterate groups. The men reporting for examination in groups of several hundred were first divided into an "Alpha" group and a "Beta" group. The usual basis of separation was "ability to read and understand newspapers and write letters home." In a number of camps, however, an educational qualification (four, five or six years schooling) was added, and in a few camps an educational qualifica-

tion alone was used. Table 1 indicates, for twenty-eight stations in which extensive examination was carried out, both the basis on which a man was considered literate, and the number and per cent. of all men examined whom it was found necessary to send to the Beta examination for illiterates. The extent of illiteracy is often largely dependent on the proportion of negroes in the group; this is therefore indicated in the final column. The figures cover the period from April 27, 1918, to the close of examining. (See table 1.)

These are striking figures. The extent of illiteracy among the men drafted is a striking fact. The figures, however, are not an exact measure of the fact. It is obvious that without a more

definite measure of literacy and a uniform standard for the separation of groups, any detailed statements are impossible; it is equally obvious that these measures, though rough and varied, do indicate general conditions of serious public concern.

2. Statistical Studies from Examining Stations— It is especially to be remembered that in view of differences in interpretation and application of methods, the following results are not directly comparable with one another. The comparisons within each set of figures are, however, valid for the station indicated, and are presented pending a more extensive tabulation of the data for the white and negro drafts (separately) from each state.

TABLE I

Station	Literary Basis	Examined	Per Cent Negro	No. Sent to Beta.	Per Cent Beta.
Bowie.....	Read and write; finished 4th grade.....	27,464	10.7	5,497	20.0
Cody.....	Fourth grade .....	43,482	0.	5,003	18.8
Custer.....	Read and write; negroes 5 years at school.....	54,354	9.9	10,004	18.4
Devens.....	.....	50,031	1.7	11,370	22.7
Dix.....	Read and write.....	67,768	19.8	19,768	29.2
Dodge.....	Read easily; 6th grade.....	69,927	25.4	22,701	32.5
Funston.....	Read and write; finished 4th grade.....	75,678	25.5	21,967	29.0
Gordon.....	Read and write.....	63,648	10.8	16,119	25.3
Grant.....	Read and write rapidly or 7th grade.....	83,229	18.8	24,218	29.1
Greene.....	Read and write; 4 years at school.....	27,807	38.6	10,512	37.8
Greenleaf.....	Read and write; 4th grade, and 5 years in U. S.....	56,097	0.8	9,992	17.8
Hancock.....	Read and write fairly and reached 6th grade.....	44,433	5.1	12,714	28.6
Humphreys.....	.....	13,981	0.	1,957	14.0
Jackson.....	Read and write.....	98,996	17.5	19,587	19.8
Kearney.....	Read and write, speak English and over 5th grade.....	18,921	.005	2,931	15.5
Lee.....	.....	82,441	8.8	23,104	28.0
Lewis.....	Read and write.....	75,519	2.2	10,209	13.5
Logan.....	Read and write.....	19,984	0.3	3,679	18.4
Meade.....	Reached 5th grade.....	65,700	20.8	21,069	32.1
Pike.....	Read and write.....	75,942	16.1	21,891	28.8
Sevier.....	4 years at school (later 6 years at school).....	24,139	18.7	6,567	27.2
Sheridan.....	Read and write; (later 6 yrs. at school).....	55,165	10.0	11,985	21.7
Sherman.....	6th grade; negroes, 8 years at school.....	64,408	30.4	26,938	41.8
Taylor.....	Read and write; negroes, finished 6th grade.....	53,336	16.9	10,672	20.0
Travis.....	Read and write.....	75,555	22.0	17,403	22.4
Upton.....	Read newspapers .....	61,559	15.4	14,486	23.5
Wadsworth.....	North'n recruits 3d grade, south'n recruits, 4th grade	67,704	6.0	13,442	19.9
Wheeler.....	Read and write; reached 6th grade (later 7th grade)	32,998	10.9	10,411	31.6
Total.....	.....	1,552,256	14.2	386,196	24.9

Read and write means "ability to read and understand newspapers and write letters home."

# The Journal of the Iowa State Medical Society

D. S. FAIRCHILD, Editor.....Clinton, Iowa

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## VENEREAL DISEASE CONTROL

We are publishing an important communication from Dr. Wilber S. Conkling in relation to venereal diseases. The selection of Dr. Conkling as director of venereal disease control was fortunate. First, because he knows the situation. Second, because of his exclusive ability. Dr. Conkling served in the Philippines as a lieutenant in the medical corps. On the Mexican border as major in command of medical corps, 3rd Iowa Regiment, and in France as director of field hospitals and later director Sanitary Train, 42nd Division as a lieutenant colonel. Dr. Conkling with twenty years service as a medical officer of the Iowa National Guard and in the beginning of the late war in charge of the medical department of 168th Iowa Infantry and twenty-five years private practice in Des Moines, peculiarly fits him for the service which he has patriotically accepted. Dr. Conkling in his letter to the profession calls attention to what the thoughtful doctor already knew but has never come to us before in all its frightful bearings. The public knows to a certainty now what they only suspected before the revelations of the selective draft. The public did not know the devastating influence of venereal disease on public health and social welfare. They have known of it only as a moral question. They did not know the cause of much of the insanity that fill our hospitals and of many cases of progressive paralysis; of the premature decay, physical and mental; of many other forms of

physical degeneration. They know now and will rightfully hold the medical profession responsible for failure to do the thing the profession only knows how to do. The public is roused and stand ready to cooperate with the profession in the prevention and cure of the disease which like a hidden enemy threatens us with dangers greater than the open warfare of the Central Powers with which we have so lately been engaged. The civilized world has its eyes opened, and we must not now lose this opportunity to perform a public duty which is opened to us and which may reasonably be expected of us.

## THE FIFTIETH ANNIVERSARY OF THE AMERICAN EDITORS' ASSOCIATION

This association held its fiftieth annual session at Atlantic City, June 6th and 7th. The attendance was small and rather disappointing. The president, Dr. Kosmack, editor of the American Obstetrical Journal in his address expressed some misgivings as to the future of the association. To one whose position was somewhat questionable there seemed to be some fundamental difficulties in the way of real usefulness. There seemed to be too much stress placed on the function of "independent" journals. It is not clear to us why an antagonism should be maintained between the so-called "independent" journals, and the "subsidized" medical journals meaning the Journal of the American Medical Association and the Journals of the State Medical Associations. As it seems to us medical journalism in a broad sense should be the dissemination of medical knowledge, medical opinion, medical information and news. If there is a class of journals devoted primarily to the interests of publishing houses or proprietary medicine houses and whose policy is dictated by these commercial institutions, they cannot be consistently called "independent" journals. From our point of view the Journal of the A. M. A. and the state journals are the real independent journals as they are controlled by the profession and cannot go very far from the views of the profession itself. There are many high class journals with a wide and useful circulation which represent the profession and we assume would not feel the necessity of placing themselves among the "independent" journals. The question of advertising will adjust itself with the better class of journals, but necessarily the ethics of what should be proper advertising must be left to the journals that most closely represent the profession. Perhaps it will be said that the association journals do not fairly

represent the profession, but such a claim needs no answer. The society journals are of course what the profession make them. It must be plain from observations made at the last session of the Editors' Association that some other issue must be found than "independent" journals, vs. "subsidized" journals if the association is to continue.

We have a feeling that an association of medical editors might be helpful in the way of cultivating a better understanding of what should be the function of a medical journal and how it could best serve the medical public. It is not at all probable that two or three great medical journals with a few special journals will be accepted as the only medium of medical information, how ever ably these journals may be edited, medical activities in every other direction are being organized and coordinated and why not medical journalisms?

The editing of a medical journal does not fall far short of a profession. If the medical press is to take its place with the literary press, men must be trained to the work. It cannot be expected that a member of the State Medical Society who gets the majority vote for secretary can with the help of a stenographer edit a strong journal until after some years' training and experience. The same may be said of a busy practitioner who turns editor.

We will not enter upon a discussion of this subject now but merely suggest that some plan be worked out to bring about a better standard of medical journalism by conciliation for the single purpose of elevating the medical press in the interest of the good name and dignity of medical profession and let the line be fairly drawn between genuine medical journals and the so-called medical journals which are only the organs of commercial houses.

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### MODERN MEDICINE

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A new journal bearing the above name appeared in May. At this time when the future of medical journalism is somewhat uncertain, the question naturally arises, has the new enterprise a message to bring to the profession? The three men who stand as editors and who bear certain responsibilities are well known to the profession. Two are distinguished physicians and have been active in matters which bring the medical profession in relation to the public.

The editorial staff consists of Dr. Alexander Lambert, Dr. S. S. Goldwater and John A. Lapp, L.L.D., with John A. Lapp managing editor. The announcement reads, "The Application of Medi-

cine and Allied Sciences to Industrial Efficiency and National Health." The table of contents for the May and June numbers indicate the character of the contributions, which are from men of the highest standing in matters relating to public welfare and concerning problems in social medicine. Papers of the character here set forth may be found scattered through periodical medical literature, but as the editors believe a new era in medicine is approaching and that the time is ripe for an intensive propaganda in the direction of leadership in a constructive cooperation for industrial and health service. We believe that the undertaking will meet with favor by the medical profession and with a considerable body of the general public.

Many men in the medical profession are looking beyond the discussion of what medicine is best for a given disease and are thinking more intently upon the real function of the medical profession. We are no longer the mere servant of one who has a distressing malady he desire to be rid of, indeed we are in a broad sense the servant of the public which needs our help.

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### *To the Medical Profession of Iowa:*

The State Board of Health having extended to me the honor of appointment as director of venereal disease control for the State of Iowa, I wish at this time to extend my greetings to all and ask your cooperation.

That something should be done along these lines has been realized for a long time, and with our entry into the world war the camouflage which had covered this subject in the past was suddenly removed. We at last know the truth, viz., that a very large number of men of a military age were infected with a venereal disease. The Federal Government took prompt action and in this state the State Board of Health, through its secretary, G. H. Sumner, and his able assistants did a most efficient work in an educational way, also in a practical way, such as organizing clinics and isolation hospitals.

The funds for this work were provided by the Federal Government under the Chamberlain-Kahn Act. The Thirty-eighth General Assembly passed an act known as Senate File No. 94, which legalizes the appropriation of money by the respective counties for the carrying on of this work; also, creating a department under the State Board of Health to direct same. This law may not be perfect, but all must admit that something is needed along this line. It would be impossible for any law to suit all individual ideas, therefore

it is hoped that all will cooperate in getting the greatest possible good out of this legislation.

As director, I can do very little without your assistance. Medical men at all times have been leaders in all things which have been for the benefit of mankind. May I then depend upon you for your full support? If I can have this there is no doubt as to this movement being a success. It is the desire and policy of the State Board of Health that a free clinic be established in all of the larger cities of the state, the same to be supported by the local counties, except the medication, which will be furnished by this department. To this clinic could be referred all who were infected and unable to pay a private physician. Arrangements should be made for those requiring hospital care, also to isolate those who would be a menace to the public if running at large, while in an infected state. A follow-up system should be established which will trace down the source of the infection in a given case, and thereby make it possible to place the man or woman responsible for the spread of the disease in that specific case under treatment, or when necessary, under restriction. This work will involve the local health authorities, but the doctor must first locate by information received from his patient, the source of the infection and report same to the local health boards, or see that his patient makes the report. It is realized that this information cannot always be secured, and perhaps not always be utilized when secured, but in many cases it could be used to advantage. The success of this follow-up plan depends upon the cooperation of the patient, the doctor and the health authorities.

This, of course, will cost some money, but what is there which is worth while that does not? This expenditure should be looked upon as an insurance against a future disability of our boys and girls. I have two sons and a daughter—what would I pay in dollars and cents for a policy which would prevent them from the possibility of any such infection? What would it be worth to you for your children?

Dr. Albert of Iowa City has organized a laboratory at the State University for all necessary laboratory work free. The hospital at Iowa City will care for all cases requiring hospital treatment for those counties unable to care for their own—this at the same rate for board and care as paid to them by the Federal Government. Others are doing their part in the work. Over 99 per cent. of all the papers and periodicals in the State of Iowa have eliminated venereal medical advertisement of all kinds. Six hundred forty-one druggists of the state have signed agreements not to sell patent medicines for the cure of venereal

diseases, or to do any counter prescription for the same.

The education of the public will be continued. There has never been a time when the general public was as interested in such matters. The time has passed when we must speak of such things in a whisper. The reproduction of the human race is of too vital importance to the future of our country to give up the fight just because the war is over. The churches, schools, Y. M. C. A.'s, Y. W. C. A.'s, business associations, and all employers of men and women must all be kept interested. An enormous amount of literature has gone out over the counties and this will continue.

The local boards of health have all received the blanks referred to in the venereal control act, and these can be secured of them. Physicians need not, (unless they desire) report the patient's name, but they should keep a duplicate of his number and name in their own case records and keep patient under observation until fully recovered.

The board has been fortunate in securing the services of Dr. Jeannette Throckmorton for this department. Her work with women in public welfare is too well known to require further comment on my part.

Much more could be said on the subject, but you are all busy men and women, and I will only again repeat—give us your earnest support.

WILBUR S. CONKLING, M.D.

Des Moines, Iowa, July 14, 1919.

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### NERVOUS SHOCK

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It is only a few years ago that nervous shock was alleged to be a frequent concomitant of injuries in railway and other accidents. It was held that an actual physical injury was less liable to produce general nervous symptoms than a moderate shaking up of the body associated with pain and fright in a distressing accident. The same observation has been made among soldiers in the late war. Major Kennedy of the British Medical Service makes the statement that "almost never are generalized psychoneurosis seen in soldiers suffering from physical wounds," and cites several instances coming under his observation but in a number of instances it was found later that severely injured soldiers on returning to England developed neurotic symptoms, the outcome of localized suggestion which do not differ essentially from those seen in all neuropathic hospitals in civil life. At one time we were assured that the neuropathic symptoms were due to cell com-

motion from the shock to the nervous system. Later study has shown that the symptoms are not from an injured nervous system but are psychic in character and not a disorder from nerve changes. The study of these cases of suggestion on a nervous system under great strain from the conditions incident to war and on one who has suffered a disabling injury needs the most careful consideration. Medical officers have studied these cases with greater care than ever before. This has grown out of the fact that unless these neuropaths can be restored to usefulness, a considerable number of useful men will be lost to society. The treatment must rest on an accurate knowledge of the condition of the patient and a firm belief and confidence in what should be done, quite at variance with what is so commonly observed in civil practice where a patient is injured and suffers a neuropathic state from suggestion and for the purpose of increasing the money compensation, intensifies in every way the effects of suggestion from partisan medical examinations and legal consultations. While the money compensation may be materially increased a permanent psychoneurotic condition is established. The neurologist of the past has been able to enumerate a considerable list of permanent nervous disorders from trauma. He did not understand what had really happened or clearly know how these could have been avoided.

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#### THE OBSTRUCTION OF MEDICAL RESEARCH

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It is well known that in England research has been much interfered with on account of certain legislation preventing the use of certain animals for experimental work, particularly dogs. The British Medical Journal bitterly resents the passage through a standing committee of the House of Commons of the so-called "Dogs Protection Bill." The profession and many friendly newspapers are loud in their warning as to the effect of this "Blow to Medical Science." It appears that the British have much more regard for dogs than for human beings. The effect of the bill, it is said, would render anyone who made an experiment upon a dog liable to prosecution. In the United States we have been threatened from time to time with similar legislation, but fortunately we have so far escaped such a calamity. It seems difficult to believe in view of the great benefits which animal experiment has rendered to humanity that watchful care must be constantly exercised to prevent such vicious legislation.

#### TREATMENT OF GAS GANGRENE BY SPECIFIC SERUMS

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In *La Presse Medical* for Feb. 20, 1919, appears a paper on specific serums by M. M. E. Saquepu and De Lavergne. The authors state that the disease may be considered as a toxic infection in which the toxic element depends upon a germ infection. The essential germs are the vibron septic, the bacillus bellonensis, both very septic and the bacillus perfringens less toxic. The respective role of these different species has for a long time been under discussion, especially the vibron septic. The first attempt to prepare a serum or rather two serums, one; serum antivibron septicum at the Pasteur Institute by Jouan and serum antibellonensis by Raphael and Frasey. Later a serum antiperfringens by Veillon. These serums were used separately or all three simultaneously according to the preponderance of the form of infectious germs. In 136 cases; cured, 113 or 83.08 per cent.; died, 23 or 16.91 per cent.

The authors call attention to the known fact that the disease is characterized by a double syndrome, one the local infection and the general intoxication, the last most grave. It is this latter syndrome that the serum exercises a most remarkable effect. In relation to preventive effects they seem much less active than the curative effects.

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#### POST GRADUATE COURSES OF INSTRUCTION IN ANESTHETICS IN THE UNIVERSITY OF CALIFORNIA

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It is announced that the California University Hospital will give three months courses in anesthetics to interns and graduates in medicine in good standing. Classes are limited to four. The courses will include (1) History of Anesthesia; (2) Ethics of Anesthesia, including the relation of the anesthetist to the surgeon; (3) Physiology of Anesthesia; (4) Properties of Various Anesthetic Agents; (5) Choice of Anesthetics; (6) Anesthetic Emergencies; (7) Modern Anesthetic Apparatus and its Uses, and (8) Anesthetic Records.

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#### A NORMAL SHOE FOR A NORMAL FOOT

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Can the shoemaker build a shoe that will keep normal a normal foot? And having built it will the public be brought to see the beauty of the product? Not so many years ago we gave our admiration to the small, tightly laced waist. Today we laugh at it and tomorrow we shall be equally amused by the pencil point toes and high heels that tilt the human foot to the angle of a horse's hoof. The war made

low heels beautiful on Fifth avenue, and consequently on Main street; if it had lasted a little longer, women would, of necessity, have gone the whole way with the shoe problem. The shoes of the future will not be "prescription" shoes, they will not cater to deformities, but they will be built to conform to the normal lines of the foot.

The national board of the Young Women's Christian Associations through the Health Division of the Bureau of Social Education, has started a drive to get this shoe for American women and to popularize it. The associations have all the health arguments. They have a national membership of four hundred thousand women to listen to them, but they cannot get this shoe without the co-operation of the manufacturers and dealers who make the shoes and determine the styles. To bring about this cooperation, a conference with leading shoe men was held recently at the National Board Y. W. C. A., headquarters in New York.

The manufacturers have a difficult problem, but not an impossible one. They must produce a low shoe, with a low heel and a flexible shank that will allow enough exercise of the muscles of the arch to keep them strong, a shoe with enough room for the toes and a straight inner border because the foot is naturally straight on the inner side. They must make the shoe attractive to the discriminating taste by using their knowledge of leathers to procure variety and fineness of finish for both day and evening wear. Will the shoemaker do it? When he does, the National Board of the Young Women's Christian Association will be back of him. Every woman who wants to wear the "normal line" shoe must be able to get it. All samples of shoes will be examined, an alphabetical list made, according to states and cities, of all the firms that carry these shoes.

This list will then be sent to local associations all over the United States, so that no one can say, "We would like to get these shoes, but we do not know where to find them."

Walter B. Swift, A.B., S.B., M.D., has just returned to Boston from Cleveland, where he has spent about a year installing and supervising Speech Correction in the Cleveland Public Schools. He trained up fifteen teachers who are part time speech teachers. They do their regular grade work as usual. The part time speech teacher is one of the unique features of the Swift methods and systems of speech correction. In Cleveland there are now forty-six classes and over 600 cases under treatment. This Cleveland Speech Plant is one of the finest organizations of its kind in the country. Having completed this work at Cleveland, the speech movement now passes to the West and South. Dr. Swift will be in Milwaukee, Wis., in July and Athens, Ohio in August. He is booked to give informal courses in these two cities this summer.

"Because of the war it was necessary to discontinue the clinic in speech defects in the University Hospital. All of our teachers handling this line of

work went into the service. The Speech Defect Clinic will reopen September 1, 1919. The clinic will be under the supervision of Doctor L. W. Dean."

## SOCIETY PROCEEDINGS

The Butler County Medical Society held its annual meeting in Allison. The following professional men of the county being present: M. D. Call and S. E. Biglow, Greene; W. E. Day, S. C. Smith and S. L. Scripture, Clarksville, and D. N. Reeve, Allison.

The following officers were elected for the ensuing year: President, S. E. Biglow; vice-president, D. N. Reeve; secretary and treasurer, M. B. Call; delegates to state meeting, W. E. Day; alternate, B. Eusley; censors, B. Eusley, H. N. Bruechert and J. A. Roalfs.

Another meeting of the society is to be held in Clarksville on October 15, and Doctors Smith, Day and Scripture were named as a committee to arrange the program and have charge of the meeting.

Dubuque County Medical Society, scientific program, held on Thursday, June 19. Morning session at Mercy Hospital—7:30 a. m.—Surgical Clinic. 9:00 a. m.—Pathological Laboratory—The Newer Wassermann Technique and its Value to the Patient, Dr. W. A. Johnson. 9:30 a. m.—General Clinic.

Finley Hospital—7:30 a. m.—Surgical Clinic. 10:30 a. m.—General Clinic. 11:30 a. m.—X-Ray Laboratory—Demonstration of Radiograms, Mrs. J. C. Camm.

Afternoon session at Hotel Julien—Gold Room—2 p. m.—Influenza Symposium. Etiology, Dr. C. E. Lynn. Complications, Dr. W. L. Becker. Medical Treatment, Dr. Chas. Palen. Surgical Treatment of Complications, Dr. R. R. Harris. General discussion: 3 p. m.—Human-Animal Diseases, Dr. D. J. Davis, Department of Pathology and Bacteriology, University of Illinois, Chicago, Illinois. Discussion: Dr. A. M. Loes, Dr. M. J. Moes. 4 p. m.—Advances in Brain Surgery Based on War Experience, Dr. Kellogg Speed, Department of Surgery, Northwestern University, Chicago. Discussion: Dr. A. M. Pond, Dr. J. Schrup. 5 p. m.—Clinico Motion Pictures—Star Theatre, 479 Main street. 1. Plastic Surgery, Face and Jaw, at Lyon, France. 2. Blood Transfusion (Citrated Method). 3. Re-Education Center, at Vizille, France.

Banquet—6:30 p. m.—Hotel Julien, Dubuque, courtesy of Dubuque County Medical Society.

Officers of Dubuque County Medical Society for 1919: President, Dr. J. M. Walker; first vice-president, Dr. Mary Killeen; second vice-president, Dr. E. F. Mueller; secretary, Dr. J. E. Calhoun; treasurer, Dr. G. C. Fritschel; delegate, Dr. H. G. Langworthy; alternate delegate, Dr. A. M. Loes; board of censors, Dr. B. Michel, Dr. H. M. Pahlas, Dr. W. E. Costello; librarian, Dr. W. P. Slattery.

The fiftieth anniversary of the organization of the Hahnemann Medical Association of Iowa was celebrated last evening, with a banquet, in Cedar Rapids,

the guest of honor being Dr. C. H. Cogswell, Sr., a charter member—the only living Homeopathist to bear that distinguished honor—and the guest of honor from Iowa City was Dr. T. L. Hazard, president of the State Association; and second vice-president and secretary W. M. Rohrbacher.

Dr. M. A. Royal of Des Moines, another S. U. I. alumnus, is treasurer; and Dr. A. B. Clapp, of Muscatine, still another, the first vice-president.

Dr. and Mrs. Cogswell entertained this Homeopathic Association at its silver anniversary in 1894.

The Madison County Medical Society held a meeting at the office of Dr. R. R. Davisson, Winterset, July 7. This being the first meeting for about two years, much interest was manifested, and the meeting was a business one.

The following officers were elected: President, I. K. Sayre, St. Charles; secretary-treasurer, R. R. Davisson, Winterset. The fee bill was revised to conform with the fee bill of surrounding communities, and is practically the same as that of Clarke county, recently published in the Journal. Two new members were received. The society adjourned to meet October 6.

R. R. D.

At the meeting of the Muscatine County Medical Association held last evening in the office of Dr. D. Powell Johnson, the action taken by the board of health at their last meeting when they recommended that all dairy herds be tested for tuberculosis was heartily endorsed. A committee was appointed with Dr. F. L. Appel as chairman to draw up a resolution and to present it to the board of health with the assurances of the association that it would lend its cooperation in the matter.

An interesting paper was read by Dr. F. H. Little on "Tuberculosis in Childhood," at the close of which it was discussed by the local physicians and surgeons.

Papers by Drs. A. J. Weaver and D. Powell Johnson and the report on the State Medical Society convention by Dr. W. H. Johnson will be interesting features of the monthly meeting of the Muscatine County Medical Society in the office of Dr. W. W. Potter Monday night.

Dr. Weaver's topic will be Control of Venereal Diseases, while Dr. D. Powell Johnson will present a paper on The Result of Radium Treatment of Cancers in the Past Three Years. The meeting will open promptly at 8 o'clock.

The Pocahontas County Medical Society met in annual session at Laurens, July 8.

Capt. E. W. Wilson of Rolfe, read a paper on Some Physiological Considerations of the Heart, and Lieut. E. L. Hollis of Rolfe presented a paper on Organic Diseases of the Heart. These papers were discussed together, and the freedom of discussion showed that they were valuable and interesting.

Upon motion Dr. J. W. Starr of Pocahontas was received into membership. The subject of holding semi-monthly meetings of the society was considered and approved, and the next meeting of the society was held at Plover, July 22.

A general discussion on hard surfaced roads was indulged in by the members present; and upon motion that the society draft a resolution in favor of hard surfaced roads for publication and for presentation to the board of supervisors the following were appointed as a committee. Drs. Hollis, Hovenden, Whitney, Townsend and Kepler.

Upon motion, the fee bill was adopted as revised.

The following officers were elected: President, S. J. Townsend, Gilmore City; vice-president, J. H. Hovenden, Laurens; secretary-treasurer, B. A. Smillie, Gilmore City.

E. C. K.

Proceedings of the Poweshiek County Medical Society held at Brooklyn, July 8.

This meeting was called for the purpose of discussing the business side of the practice of medicine. It was largely attended and much interest was manifested in the discussion which was led by Dr. C. D. Busby of Brooklyn, in a very able and interesting paper.

The following resolutions were passed:

Moved that the chair appoint a committee to draft a county fee-bill and report at the next meeting. Amended by making one member of the committee from each town in the county.

Committee: C. D. Busby, Brooklyn; chairman, Williams of Montezuma; Gunn of Deep River; Wilcox of Malcom; Parish of Grinnell.

Moved that this society appoint a committee to see the societies of neighboring counties concerning uniformity of fees.

Moved that a committee of three be appointed to draft a resolution of protest to the industrial commission on the low fee bill established by it and that this resolution be published in the Iowa Medical Journal and presented to the House of Delegates of the State Society.

Committee: Dr. P. E. Somers, C. D. Busby, E. B. Williams.

It was voted that the society meet in Montezuma on the second Tuesday in August.

E. E. H.

The Sioux County Medical Society met in Hull, Tuesday evening, June 17, in the new hospital of Dr. G. Maris. Those present were Dr. Glysteen, president; Dr. Lespinasse, secretary and Dr. G. Maris, Dr. John DeBey, Dr. G. Oggle, Dr. W. Maris, Dr. J. H. Meyers and Dr. C. L. Roland, members.

The program was as follows:

Post Partum Hemorrhage—Dr. G. Maris. Discussion opened by Dr. C. L. Roland.

Toxemia of Pregnancy—Dr. A. F. H. De Lespinasse. Discussion opened by Dr. J. H. Meyers.

Eclampsia—Dr. Glysteen. Discussion opened by Dr. John De Bey.

The papers were well prepared and dealt with such practical subjects that they brought forth a free discussion by all members present. It was a very profitable meeting. After the program the members and their ladies adjourned to the dining room of the hospital where a banquet was served by the hospital nurses. This was thoroughly enjoyed. We hope that Dr. Maris will invite the society to his place again as he proved a royal entertainer.

C. L. R.

The following invitation was sent out for the July meeting of the Van Buren County Medical Society:

There will be a special meeting of the County Medical Society, to be held at the Wm. Carruthers home in Pittsburg, Tuesday, July 15. Meeting to be called for 10:30 a. m. and to continue until program is completed.

This is to be a basket picnic dinner. You are expected to bring a well filled basket of "eats," together with plate, cup, fork, spoon and small sauce dish for each of your party. You are privileged to bring as many guests as you wish, providing you furnish food, etc., for each person. Bring whoever you like. (Better be your wife, however, if married.)

If you are a member of the Society you are expected to be present. If not, you are especially urged to come anyhow and meet with the others and become one with us. Come anyhow.

The program will consist of talks by our soldier doctors and nurses. Major Edgerly, who was chief of medical staff at Camp Dodge; Major Herrick, who was chief of evacuation hospital in France; Major Bannister, who did some original work in aviation branch; Lieutenants Saar and Coffin, who saw service in France; Lieutenants Mott and Graber, who did good work in camps here, and last but not least, Miss Grace Bell, of Mt. Sterling, a Red Cross nurse, with Unit "R," and who was with them all during their service, and more, by going into Germany with the Army of Occupation. Certainly this program would entice any weary medical man away from his work for a few hours.

It is a privilege to hear such, and it is our further duty to pay them the tribute, so rightfully theirs, by every member being present. The bigger the crowd, the more successful the meeting.

If weather prevents, the meeting is postponed until Thursday of the same week.

You are urged to come.

Van Buren County Medical Society,

C. R. Russell, Sec'y.

The forty-eighth annual meeting of the Des Moines Valley Medical Association to be held at the court house Thursday, will have more of a military aspect than any meeting of this body since it came into existence nearly half a century ago. Among the physicians on the program of the convention and at the dinner that is always a feature of these gatherings, are at least three overseas officers, members of

Base Hospital Unit R. They are the unit's head, Lieut. Col. J. Fred Clarke of Fairfield, Major John F. Herrick of Ottumwa and Capt. R. A. McGuire of Brighton.

The meeting opens at 9:30 in the large court room and a large number of visiting physicians from all over southern Iowa is expected to be present. The business session continues until 12:30 when adjournment is taken for the luncheon at the First Congregational Church. The officers of the association are Drs. S. K. Davis of Libertyville, president; M. F. Moore, Ottumwa, vice-president; T. R. Jackson, Albia, second vice-president, and E. B. Howell of Ottumwa, secretary-treasurer. Drs. D. T. Rambo of Ottumwa, E. R. Newland of Drakesville, and L. Torrence of Blakesburg, board of censors.

The program following the luncheon is as follows: Toastmaster, Dr. A. O. Williams.

Family Physician—Dr. S. K. Davis.

Between Drives in France—Lieut. Col. J. F. Clarke.

Paw-Paw—Dr. C. E. Huband.

Flea Bite Us—Dr. H. C. Eschbach, Albia.

The program for the convention at the court house follows:

Invocation—Rev. William Wilson.

President's Address—S. K. Davis, Libertyville.

Repair of Pelvic Structures Following Trauma of Labor—J. F. Herrick, Ottumwa.

Uterine Hemorrhage—George Niblock, Derby.

Laboratory Findings as an Aid in Diagnosis—F. E. Hecker, Ottumwa.

Some Practical Considerations on Blood Transfusion—John De J. Pemberton, Rochester, Minn.

Observation on War Surgery—R. A. McGuire, Brighton.

Extremity Fractures—Charles S. James, Center-ville.

Examination of the Nose—F. S. Bonnell, Fairfield.

Iowa and Illinois Central District Medical Association program:

Bacteriology of Pneumonia—Dr. F. H. Lamb, Davenport.

Hypopituitarism (lantern slides)—Dr. William En-  
belbach, St. Louis.

Management of the Later Stages of Compound Fractures—Dr. D. B. Phemister, Chicago.

Diaphragmatic Pleurisy—Dr. A. D. Dunn, Omaha, Nebraska.

The Application of the Knowledge Obtained in War Surgery to Civil Problems—Dr. F. A. Beasley, Chicago.

The Study of the Application and Influence of the Single Remedy for Direct Results—Dr. Finley Ellingwood, Chicago.

Officers for 1919: President, Wm. H. Rendleman, Davenport; secretary, A. E. Williams, Rock Island; treasurer, J. D. Starbuck, Davenport; reporter, W. D. Chapman, Silvis.

Dr. H. W. Sigworth was elected president of the Waterloo Medical Society at the annual election in

the association's club rooms in the Black building. He succeeds Dr. F. T. Hartman.

Dr. A. A. Hoffman was chosen vice-president; Dr. W. B. Small, secretary; Dr. C. W. Ellyson, treasurer; Dr. F. T. Hartman, trustee, and Dr. Edward Molloy, censor.

Last night's meeting is the last for the summer. The next gathering of the society will be in September.

Dr. W. H. Jenks, recently returned from twenty-one months' service in the British Army, gave a few reminiscences of experiences in France.

Resolutions

In honor of Dr. John M. Ristine, whose death occurred a few months ago, and of Dr. George S. Muirhead of Marion, who died recently, the Linn County Medical Society, at its last meeting passed the following resolutions:

"Whereas, In the course of human events, our friend and member, Dr. John M. Ristine ended a life of usefulness on January 8, 1919, after long years of devotion to his calling of relieving others, not only by his skill as a physician and surgeon, but by his sympathetic comfort to those in trouble and

"Whereas, The Medical Society, realizing its loss and desiring to tender our sympathy to the wife and son of our deceased brother, we herewith offer the following resolution:

"Resolved, That the Linn County Medical Society tenders to Mrs. Ristine and family, our sympathy and assurance of our desire to aid and comfort them in any way in our power. And that we do and will hold the memory of Dr. John M. Ristine in high respect. And that a copy of this expression, signed by the president and secretary, be sent to Mrs. Ristine and placed on the records of the society.

DR. GEORGE P. CARPENTER."

The society adopted the following resolution in regard to Dr. Muirhead:

"Resolved that in the death of our co-laborer, Dr. George S. Muirhead, that we, the members of the Linn County Medical Society, have lost a true friend and brother, who was in every way worthy of our respect and regard.

"Ever ready to assist and befriend an associate, and whose devotion and untiring service to his friends was largely responsible for his untimely death.

"Resolved, That this heartfelt testimonial of our sympathy be spread on our record, and a copy be sent to the family.

DR. C. T. BROWN."

COMING MEETINGS

Annual Meeting Tri-State District Medical Society, Rockford, Illinois

Program of the annual assembly of the Tri-State District Medical Association, Rockford, including Camp Grant, Illinois.

Headquarters of meeting, New Woman's Club building and theatre, corner of North Church street and Park Avenue.

The Tri-State District Medical Society (Iowa, Illinois and Wisconsin) extends to the physicians of the Middle West a hearty invitation to be present and participate in the program at the annual assembly of this association held at Rockford, including Camp Grant, September 1, 2, 3 and 4.

The territory covered by this organization includes the entire states of Iowa, Wisconsin and Illinois. The word "district" is retained in the name of this society in order to distinguish it from other tri-state medical organizations.

The association is chartered under the laws of the State of Illinois and adheres to the code of ethics established by the American Medical Association; and is a purely scientific body, assuming no legislative duties.

A physician in order to become a member of this association must be in good standing in the County and State Societies in the territory in which he or she resides.

The diagnostic clinics are always a leading feature at the annual meeting of this society; and are conducted by the eminent men of the profession who have honored the society by their presence as guests. The Rockford physicians are arranging through the committee for an abundance of material for diagnostic purposes. Physicians from other cities and towns who have interesting or obscure cases are urged to bring them to the clinics. Information may be obtained in regard to the subject by writing Dr. Sanford R. Catlin, chairman of the surgical section, or Dr. Dudley W. Day, chairman of the medical section of the Rockford committees.

A special invitation is extended to the doctors' wives, daughters and lady friends to be present. Delightful entertainment will be provided for them by the ladies' entertainment committee of Rockford.

William B. Peck, Freeport, Ill.,  
Managing Director.  
Domer G. Smith, Freeport, Ill.,  
Secretary.

Program Committee:

Henry G. Langworthy, Dubuque, Iowa,  
Arthur G. Sullivan, Madison, Wisconsin,  
Edwin P. Sloan, Bloomington, Illinois.

PROGRAM

First Day, September 1  
10-12 a. m.

Registration for Doctors and Ladies in Foyer of Theater of Woman's Club Building.

2:00 p. m.

Automobile Excursion for Doctors and Ladies to places of interest including Camp Grant.  
Golf Tournament, Rockford Country Club. Doctors please bring their handicap.

7:30 p. m.

Address in Roentgenology—Dr. James Thomas Case,

Professor of Roentgenology, Northwestern University, Battle Creek.

8:30 p. m.

Public Lecture to the Physicians and Citizens of Rockford. Subject: The National Welfare—Dr. Victor Clarence Vaughan, President of Michigan State Board of Health, Dean and Professor of Hygiene and Physiological Chemistry, Ann Arbor.

## Second Day, September 2

7:00 a. m.

Diagnostic Clinic (Surgical)—Dr. Joseph Bloodgood, Professor of Clinical Surgery, Johns Hopkins University, Baltimore.

Diagnostic Clinic (Medical)—Dr. Victor C. Vaughan, Ann Arbor; Dr. Christopher Graham, Mayo Clinic, Professor of Medicine, University of Minnesota Graduate School of Medicine, Rochester.

Address of Welcome—Hon. Robert Rew, Mayor of Rockford.

Response to Address of Welcome—Dr. Edward Fiegenbaum, Edwardsville, Ill.

Subject announced later—Dr. Paul Gardner, New Hampton, Ia.

Empyema as Found in the Army—Dr. Emil Windmueller, Woodstock, Ill. Discussion led by Dr. Sanford R. Catlin, Rockford, Ill.

Early Recognition and Treatment of Intussusception—Dr. Charles Krouse, Cedar Rapids, Ia. Discussion led by Dr. Geo. V. I. Brown, Milwaukee, Wisconsin.

Address—Dr. Victor C. Vaughan, Ann Arbor, Mich.

## Afternoon Session

1:30 p. m.

Neurasthenia—Dr. August Sauthoff, Member Medical Staff Wisconsin State Institution, Mendota, Wis. Discussion led by Dr. Frank I. Drake, Superintendent Wisconsin State Institution, Mendota, Wis.

Some Remarks on Mental Status—Dr. Sidney D. Wilgus, Rockford, Ill. Discussion led by Dr. Arthur W. Rodgers, Oconomowoc, Wis.

Address—Dr. James H. McKee, Philadelphia.

Goiter—Dr. Thomas F. Duhigg, Des Moines, Ia. Discussion led by Dr. Edwin P. Sloan, Bloomington, Ill.

Address—Dr. Joseph Bloodgood, Professor of Surgery, Johns Hopkins University, Baltimore.

3:30 p. m.

Camp Grant Program (at Woman's Club Bldg.)

Address—Colonel Peter C. Field, Camp Surgeon, Camp Grant.

Tuberculosis and the Soldier—Major Clarence L. Wheaton, Chicago. Discussion led by Dr. Robert S. Berghoff, Chicago.

Treatment of Pneumonia with a Specific Serum (Kyes) at Camp Grant—Major Alfred W. Gray, Milwaukee. Discussion led by Dr. John H. McClellan, Chicago.

The Dietetics of the Severer Digestive Disorders of Infancy—Dr. James W. Van Derslice, President

Illinois State Medical Society, Oak Park. Discussion led by Dr. Jacob Carl Krafft, Chicago. Catharsis Following Abdominal Operations—Dr. John F. Herrick, Ottumwa. Discussion led by Dr. William L. Karcher, Freeport, Ill.

Suggestions for the Treatment of Fractures of the Radius and Ulna at the Middle Third—Dr. Charles H. Lemon, Milwaukee. Discussion led by Dr. James P. Dean, Madison, Wis.

Address—Dr. Edward Carl Rosenow, Mayo Clinic, Professor of Bacteriology, University of Minnesota Graduate School of Medicine, Rochester.

Lesions of the Cervical Sympathetic, with Report of Three Cases—Dr. Tom B. Throckmorton, Secretary Iowa State Medical Society, Des Moines. Discussion led by Charles R. Bardeen, Dean and Professor of Anatomy, University of Wisconsin Medical School, Madison.

Reciprocal Relation of Wisconsin with her Neighbors—Dr. John Morris Dodd, Ashland. Discussion led by Dr. E. B. Cooley, Danville, Ill.

Address—Dr. Hugh Cabot, Professor of Surgery, Medical School of Harvard University, Boston.

## Evening Session

7:00 p. m.

Address—Dr. Fred H. Albee, Professor of Orthopedic Surgery, New York Post Graduate School of Medicine, New York City.

Empyema—Dr. Joseph Dean, Madison, Wis. Discussion led by Dr. Robert S. Van Valzah, Associate Professor of Clinical Medicine, University of Wisconsin Medical School, Madison.

Fixation of the Caecum (Lantern Slide Demonstration)—Dr. Clifford U. Collins, Peoria. Discussion led by Dr. Roland Hazen, Paris, Ill.

The Surgical Importance of Non-Rotation of the Colon During its Development, (Lantern Slide Demonstration)—Dr. Frank Buckmaster, Effingham, Ill. Discussion led by Dr. Wilson Cunningham, Platteville, Wis.

Address—Dr. Dean DeWitt Lewis, Associate Professor of Surgery, Rush Medical College, Chicago.

Smoker. Chronic Gas Poisoning, Based on Observation of Two Thousand Cases—Captain Robert S. Berghoff, Chicago. Discussion led by Dr. John F. Herrick, Ottumwa, Ia.

Luncheon at Country Club for Doctors and their ladies.

## Evening Session

7:00 p. m.

Motion Pictures.

Address—Dr. Christopher Graham, Mayo Clinic, Professor of Medicine, University of Minnesota, Graduate School of Medicine, Rochester.

The Diagnosis and Treatment of Gastric and Duodenal Ulcers—Dr. Eber F. Stevenson, Waterloo, Iowa. Discussion led by Dr. Joseph W. Rowntree, Waterloo, Iowa.

Address—Dr. Frederick Atwood Besley, Professor of Surgery Northwestern University Medical School, Chicago.

**Third Day, September 3**

7:00 a. m.

Diagnostic Clinic (Surgical)—Dr. Hugh Cabot, Professor of Surgery, Medical School of Harvard University, Boston.

Diagnostic Clinic (Medical)—Dr. Solomon Solis Cohen, Professor of Medicine, Jefferson Medical College, Philadelphia.

Blood-Pressure Conditions as Studied by a General Practitioner—Dr. Frank T. Hartman, Waterloo. Discussion led by Dr. Walter H. Sheldon, Madison.

Compulsory Health Insurance—Dr. Elmer B. Cooley, Danville, Ill. Discussion led by Dr. John R. Ballinger, Chicago.

Business Evolution and the Future of Private Medical Practice—Dr. William E. Fairfield, Green Bay, Wis. Discussion led by Dr. Theodore J. Redelings, Marinette, Wis.

The Ophthalmologist and Otologist Retrospectively and Prospectively Considered—Dr. J. Sheldon Clark, Freeport, Ill. Discussion led by Dr. Joseph C. Beck, Associate Professor of Surgery (Ear, Nose and Throat) University of Illinois, College of Medicine, Chicago.

Address—Dr. Solomon Solis Cohen, Professor of Medicine, Jefferson Medical College, Philadelphia.

**Afternoon Session**

1:15 p. m.

Intestinal Obstruction with Unusual Complications—Dr. John R. Guthrie, Dubuque. Discussion led by Dr. Thomas W. Nuzum, Janesville, Wis.

**Fourth Day, September 4**

7:00 a. m.

Diagnostic Clinic (Surgical)—Dr. George Washington Crile, Professor of Surgery, Western Reserve University, School of Medicine, Cleveland; Dr. Albert John Oschner, Professor of Surgery, University of Illinois, College of Medicine, Chicago.

Diagnostic Clinic (Medical)—Dr. William Sidney Thayer, Professor of Medicine, Johns Hopkins University, Medical Department, Baltimore.

Shock in Theatre of Operation and Advancement Zone in War, a Few Observations—Dr. Donald McCrae, Jr., Council Bluffs. Discussion led by Dr. Dean DeWitt Lewis, Chicago.

Application to Civil Practice of Principles Disclosed in the Treatment of Thoracic War Injuries—Dr. John L. Yates, Professor of Clinical Surgery, Marquette University, Milwaukee. Discussion led by Dr. Louis M. Warfield, Professor of Clinical Medicine, Marquette University, School of Medicine, Milwaukee.

The Doctor and Public Health—Dr. C. St. Clair Drake, Secretary of Illinois State Board of Health, Springfield. Discussion led by Dr. Victor C. Vaughan, Professor of Hygiene and Physiological Chemistry, University of Michigan, Medical School, Ann Arbor.

Address—Dr. Albert John Oschner, Professor of Surgery, University of Illinois, College of Medicine, Chicago.

**Afternoon Session**

1:00 p. m.

Some Points on Prostatectomy, with Special Reference to its After Treatment—Dr. Dennis J. Hayes, Professor of Genito Urinary Surgery, Marquette University, School of Medicine, Milwaukee, President Wisconsin State Medical Society. Discussion led by Dr. Emerson A. Fletcher, Milwaukee.

Address—Surgeon General Merritte W. Ireland, U. S. Army, Washington, D. C.

Address—Dr. William Sidney Thayer, Professor of Medicine, Johns Hopkins University, Medical Department, Baltimore.

Address—Dr. George Washington Crile, Professor of Surgery, Western Reserve University, School of Medicine, Cleveland.

Some time during the fourth day Dr. Henry G. Langworthy, Dubuque, Iowa, will present a paper on the subject "Our Society Endowment Fund."

**BANQUET 6:30 P. M.****Addresses**

Major General Leonard Wood, United States Army. Eminent men of the profession who are guests of the Association and other distinguished citizens of the United States.

Presidents of State Societies: Wisconsin, Dr. Dennis J. Hayes, Milwaukee; Iowa, Dr. William L. Allen, Davenport; Illinois, Dr. James W. Vanderslice, Oak Park.

**Medical Society of the Missouri Valley**

The Thirty-Second Annual Meeting of this society will be held in Des Moines, Thursday and Friday, September 18-19, under the presidency of Dr. Charles Wood Fassett of Kansas City. Arrangements are in the hands of the Polk County Medical Society, Dr. Charles Ryan, chairman of the committee.

The scientific program will cover a wide range of subjects of interest to every member, no matter in what special field he is working. One-half day will be devoted to war subjects, shell shock, hemorrhage, amputations, gas, and rehabilitation. All members who were in the service are invited to contribute to the symposium.

The new Hotel Fort Des Moines will be headquarters and meeting place. The commercial exhibits will also be held here. Make your room reservations early.

Program will be issued early in September and will be limited to twenty papers.

A "home-coming dinner" will be given the evening of the first day at the Fort Des Moines Hotel, followed by addresses by men of national reputation. The profession is cordially urged to attend this dinner.

## PRELIMINARY PROGRAM

Major Horace Evans, M.C., U. S. A., chief section of physical reconstruction, address on The Work Being Done in the Reconstruction Hospitals.

Dr. E. C. Rosenow of the Mayo Foundation, Influenza.

Dr. B. B. Grover of Colorado Springs will present a paper on Hyperpiesia.

Dr. Frank C. Norbury of Springfield, Ill., will address us on The Mental Mechanism of War Neuroses.

Dr. John W. Schumann, Sioux City, Luetic Cerebrospinal Meningitis.

Dr. George H. Hoxie, Kansas City, The Thyroid Response to Overstrain.

Dr. Clifford G. Grulee, Chicago, The Clinical Picture of Pyelocystitis in Infancy.

Dr. H. Winnett Orr, Lincoln, Nebr., The Treatment of Spinal Curvature.

Dr. A. F. Taylor, Omaha, The Treatment of Uterine Hemorrhage by Radio-Therapy.

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OBITUARY

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Dr. Joseph A. Treat was born in Orion village, December 10, 1841, and died April 28, 1919. Both he and his father, Senator Loren Ludlow Treat, were postmasters in Orion's early days in what is now the Northcott residence. He was educated in the State Normal School and the University of Michigan, taught school in the Bigler and other districts near Orion. He commenced the study of medicine with Dr. E. Burdick of Oxford and graduated from the department of medicine at Ann Arbor in 1867, establishing his practice at Marquette, Mich., in the fall of that year, practicing until the fall of 1874, when he removed to Chicago. He was married to Miss Emma A. Starritt of Chicago, July 9, 1872, to which union was born one child, Loren S. Treat, D.D.S. Dr. Joseph A. Treat, on account of ill health, moved to Stuart, Iowa, again taking up the practice of medicine, and there established a drug business which he conducted for thirty-six years.

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Dr. George S. Muirhead, prominent physician of Marion, died at a Cedar Rapids hospital Sunday night at 11 o'clock. He was fifty-one years of age. He had been ill about three weeks, due to overwork, and finally succumbed to pulmonary tuberculosis. He was born in Keene, Peterborough county, Ontario, October 18, 1867, the youngest of eight children.

He came to Iowa in 1870 with his parents, who located on a farm near Tipton, in Cedar county, for one year and then moved to Tama county, near Traer, where they made their permanent home and where Dr. Muirhead grew to manhood.

When nineteen years of age he became a teacher, continuing in this work for about three years and studying medicine in vacations with Dr. Parsons of Traer. He then attended the College of Medicine of the State University of Iowa, at Iowa City, graduat-

ing in 1891, and locating at Marion, where he practiced with marked and increasing success to the time of his death.

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Mrs. Charlotte Krejci, eighty-two, wife of a pioneer Sioux City physician, died at her home, 1106 Summit avenue.

Dr. and Mrs. Krejci came to Sioux City, May 4, 1872, where the doctor has conducted the practice of medicine for more than forty years.

Mrs. Krejci was born in Frankfort, Germany.

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Dr. James M. Barstow died at his home in Council Bluffs, May 20, 1919. He had been a resident of Council Bluffs for nearly half a century and had been prominently identified with the medical profession for many years.

Dr. Barstow was born in Peoria, Ill., September 10, 1854. At the age of one year he came to Mills county with his parents. He first attended a subscription school in a slab house in Mills, afterward the district and public schools. He also attended the Bellevue High School at Bellevue, Neb., for two terms. He taught during the summers and attended school during the winters. He also attended college at the Methodist Seminary at Glenwood.

He then taught four years and accumulated money sufficient to take his first course of lectures at the Keokuk College of Physicians and Surgeons. He continued to earn the money during vacations to pay for his tuition and expenses at the college, from which he graduated in March, 1880. After his graduation he immediately began the practice of medicine at Council Bluffs. Being ambitious he took the first opportunity of going to Bellevue Medical College, New York City, where he had the advantage of instruction, both theoretical and practical, of the most eminent physicians and surgeons of the day, and also the advantages of hospital practice. He graduated from this institution in March, 1884. He then resumed practice at Council Bluffs.

Dr. Barstow has been a professor in Creighton Medical College for twenty years, was medical member of the insanity commission of Pottawattamie county, member of the American Medical Association, the State Medical Society, Medical Society of the Missouri Valley and Council Bluffs Medical Society.

He is survived by a wife, and three sons.

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Dr. George S. Browning of Sioux City died at his home, 610 Nineteenth street, July 7, 1919, of multiple neuritis.

Dr. Browning was born in Westerly, Rhode Island, January 21, 1873. In 1904 he came to Sioux City and entered into a partnership with Dr. G. W. Beggs for the practice of medicine. Dr. Beggs died a few months later and Dr. Browning assumed the entire practice of the partnership and continued actively until confined to his house by the present illness.

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Dr. E. B. Hadley of Waterloo died at the home of

his parents in Indianapolis, Indiana, from uremic poison, June 4, 1919. Two months ago Dr. Hadley returned from service in the army where he had held a commission of first lieutenant. Dr. Hadley came to Waterloo about eight years ago and opened a medical office in the Lafayette building where on returning home from the army he resumed practice. The doctor was about forty-eight years of age and is survived by his wife and parents.

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Dr. Boothby practiced medicine in Dubuque from 1878 until June of 1917 and from August, 1918 until March, 1919.

He was born in Newfield, Maine, December 7, 1851. He graduated when a young boy from Gorham Academy, Gorham, Maine, and entered Bowdoin College, Brunswick, Maine, from which he was graduated in 1873. He took up medicine at Detroit Medical College, and was graduated from that institution in 1876. He served two years in Harper Hospital in Detroit and came to Dubuque in 1878, combining his office with that of his cousin, the late Dr. G. M. Staples. He stayed in Dubuque for six years and then went abroad, intending to specialize on eye, ear, nose and throat. He remained abroad a year, and then returned to Dubuque, opening offices on Fifth street. He continued his practice here from that time until June, 1917. In 1903 he purchased a summer home at Benton Harbor, where he spent his summer vacations. In June, two years ago, he decided to retire and moved, with his family, to Benton Harbor, where he stayed until August, 1918. At that time he learned that Dr. C. A. Kearney was to go in the service, and, although then in failing health, he felt it his duty to relieve Dr. Kearney by caring for his practice. He came to Dubuque and served for Dr. Kearney until the latter was released from the service in March, when he returned to his home in Benton Harbor to recuperate.

In 1890 Dr. Boothby was married to Miss Philena Clark. He is survived by his widow, five sons and one daughter.

Dr. Boothby's years of residence in Dubuque gave him an acquaintance that few other persons here possessed. His likeable personality and charitable characteristics won for him countless friends, who expressed genuine regret at news of his death.

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George Barnard Hibbs, M.D., of Mitchellville, died July 14, after a long illness, from parenchymatous nephritis, aged fifty-five years. Dr. Hibbs was a graduate of the Illinois College of Medicine in 1889, and had been a practitioner at Mitchellville for thirty years. He was a Fellow of the American Medical Association, and a member of the Iowa State and Polk County Medical Societies.

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#### PERSONAL MENTION

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Dr. Benjamin Thompson of Tama has just celebrated the fiftieth anniversary of his entrance to the profession.

Dr. E. S. McCord was yesterday appointed county physician for Bloomfield township and Delmar town for a period of one year.

Dr. Hibbs of Carroll is in New York City taking post graduate work.

Dr. L. P. Reich has recently been discharged from the medical service of the United States Army and will resume practice in New Hampton.

Dr. John H. Frazer recently returned from war service and has located in Clear Lake. Dr. Frazer is a graduate from the Iowa State College at Ames and from the Illinois University Medical School. He served an internship in the University Hospital and two years as instructor in biology at Ames.

Lieut. Col. Herbert D. Porterfield of Red Oak has been awarded the Croix de Guerre. He is now assistant to the chief surgeon of the Third Army Corps.

A luncheon party was enjoyed on Tuesday, May 7, at the Harris-Emery tea room by the Iowa Society of Medical Women. Following the luncheon Mrs. William McHenry gave a greeting from the local medical women and a response was made by Dr. Kate Harpel of Boone. In the evening the annual dinner was held at the same tea room, when Dr. Jennie Ghrist presided as toastmistress. The speakers for the evening were Dr. Coveny of Clinton; Dr. Alice Hatch of this city; Dr. Rose Butterfield of Indianola; Dr. Abby Holmes of Omaha, and Dr. Jeannette Throckmorton of Chariton.

Whatever has been the result of the special effort to raise funds for the extension of St. Anthony Hospital, the public is brought into closer contact with the hospital and awakened to a keener appreciation of its advantages. But it is impossible to think of the beginning of the hospital and the substantial growth it made in early years without associating therewith the genius of the late Dr. A. L. Wright. It was his skill that first attracted attention to Carroll in matters along this line. Dr. Wright was a man of boundless energy and business acumen. But with all that he was a great physician and surgeon. His great rugged personality, his conscientious devotion to his profession, his peculiar influence in the sick room, all conjoined to place him at the head of his profession. He met with opposition in his day, but it may be taken for granted that his memory is cherished by contemporaries in the profession and those who have come after. Dr. Wright will always be regarded as the founder of the hospital in Carroll. He will be looked back to by the business and professional community as one of the outstanding figures in Carroll's early history, a man who did worth while things.

Dr. Frederick Roost, who formerly held the rank of major in the American Army, has been commissioned lieutenant colonel. Lieutenant Colonel Roost is stationed at Luxembourg, Germany, where he is district inspector of one-half of the advance section of the American Army. He also served as chief surgeon of the forwarding camp at LeMons, France. He served as captain on the Mexican border, and was stationed at Camp Cody before going overseas.

Dr. Harold L. Beye, assistant professor of surgery at Iowa University, has returned from France, having been released from the hospital, wholly recovered. He was gassed last summer, while in the medical corps service. He was not due to be on the front lines at that time, but determinedly took the place of physician and surgeon, out of rotation, because of unusual eagerness to serve.

Colonel David S. Fairchild, chief surgeon of the Rainbow Division, is in the office of the chief surgeon of the United States Army at Washington, D. C., now and will remain there several weeks, until medical war records are complete. Colonel Fairchild and staff are credited with maintaining the only chemical laboratory in the front line trenches in France.

Major D. J. McCarthy, who recently returned to Davenport after two years' services abroad, will resume practice in Davenport. With Dr. Walter Foley, Major McCarthy has secured offices in the Whitaker building.

Capt. W. H. Jenks, who has recently returned from overseas where he saw twenty-one months' service with the British Army, will become associated with Capt. J. E. Brinkman in medical practice.

Dr. F. H. Lamb, who for considerable over a year past has been in the U. S. Army, being stationed most of the time at Ft. Riley, Kan., has returned to Davenport and will resume his former post at Mercy Hospital. Here he is in charge of the bacteriological laboratory.

Lieut. Don H. Newland, who has been in the medical corps of the service since March, 1918, received his discharge at Camp Dix, N. J., and after a short vacation expects to return to Belle Plaine, where he will resume his practice about June 1.

Major Kurt Jaenicke, formerly of Clinton, is now in hospital service in Cannes, France. He was at one time lieutenant in the Medical Corps of the First Iowa Infantry, later in the 133rd Infantry at Camp Cody. From this unit he was transferred to the machine gun battalion as captain. Overseas he was transferred again.

Capt. J. L. Seabloom of Red Oak, who has been in the medical department of the army, returned home from Philadelphia, having received his discharge. He has been in the service since October of last year when he entered the army as a volunteer and was sent to Camp Wheeler at Macon, Ga. Several months ago he was transferred to the U. S. A. General Hospital in Philadelphia where he remained until his discharge.

Dr. O. A. Kellogg entered the service in September, 1917, and has served in this country and France since. He returned from France and will resume practice in Dows.

Dr. Elmer Smith, one time resident of Walnut, is a successful physician at La Cumbro in the Andes mountains of Columbus, South America. The town is 5,000 feet above the sea level. The physician enjoys a practice which extends over a vast section of country. He has just completed and fully equipped

a fifty room hospital at La Cumbra. The climate of the town is almost identical with that of Los Angeles, Cal.

Dr. David Rouse, city physician, announced that he will go at once to Siberia with a commission of the Red Cross to study typhus conditions. He has asked the city council for a years' leave of absence and if granted will report at San Francisco, Cal., June 4, ready to sail.

From assistant chief of the surgical service at the base hospital at Camp Dodge, Dr. C. E. Glynn of Davenport, has been promoted to chief of this service and will take up his new duties as director of a staff of ten to twelve surgeons. He expects to be retained at Camp Dodge for two or three months and will then return to Davenport to resume practice.

Dr. P. A. Bendixen has been asked to deliver an address on Infections, Especially of the Arm at a medical conference to be held in Toronto, Canada, September 23 to 26. He is preparing to attend the meeting.

Lieut. W. Frank Brown of Keokuk has returned from overseas medical service.

Lieut. J. C. Weaver of Shenandoah has returned from overseas medical service.

Dr. R. C. Coleman, recently from the medical department of Iowa State University and Dr. Atkins, formerly of Superior, have purchased the Anderson Hospital at Estherville.

Dr. F. J. Swift of Maquoketa is still with the forces in France. He has recently been promoted to the rank of major.

Dr. George Gibson of Lehigh has moved to Fort Dodge.

Dr. Walter L. Bierring of Des Moines, president Iowa State Board of Health and secretary of the National Board of Medical Examiners has been appointed by Surgeon Braisted of the navy to attend conferences with the Conjoint Board of Medical Examiners of Great Britain and with the Ecole de Medicine of Paris with regard to reciprocal relations between these several countries. The other members of the commissions are Col. Louis La Gard and Prof. Victor C. Vaughn of the University of Michigan. Much benefit is expected to grow out of these conferences. Since the organization of the National Board much has been accomplished in the way of standardizing medical examinations. While the board has no legal authority yet, the activities of the board and the moral and professional character of the members has established an influence that will finally lead every medical graduate of high ambition to seek the national board certificate.

Dr. Ben T. Whitaker of Boone has returned from overseas service in the medical corps. Shortly before leaving France he was promoted to the rank of captain.

Major Bruce L. Gilfillan, who has recently returned from overseas, was with the 25th Engineers, comprised of Eastern men until they got to the front when he joined Mobile Hospital No. 1 keeping

with the advance of the army toward the Rhine.

Major William Rankin of Keokuk has returned from overseas service.

Captain C. W. Mehlhop of Dubuque was recently in charge of a troop train of 350 casualties for Camp Dodge and Camp Lewis, Washington.

Dr. F. A. Hubbard recently returned to Columbus Junction to resume practice. He was for several months in overseas army surgical service.

Captain T. B. Herrick returned to Manson recently from a fourteen months' service with the British Army medical service.

Dr. Don H. Newlands and Major C. J. Snaitkey have returned from overseas service and will be associated in practice at Belle Plaine.

It is said that Dr. F. J. Smith of Little Rock, Iowa, is one of the most active obstetrical practitioners of the state, notwithstanding his thirty-five years' service in the medical profession.

Dr. W. Frank Brown has returned to medical practice in Keokuk after two years' service in the United States and France.

Dr. A. A. Schultz of Fort Dodge, a lieutenant in the Medical Reserve Corps in France, has received his commission as a captain, and is serving as assistant chief in the medical service at Base Hospital No. 88, located near Savenay, France. The doctor expects to sail for this country early in June.

Dr. Loren M. Martin, who has been in the army medical service overseas, returned to Fort Dodge June 2, 1919. He will resume practice, continuing with Dr. W. B. Newton who took over his practice and office when Dr. Martin entered the service.

Rodney Fagen of Des Moines, former city physician, now in the chief surgeon's office in the advanced section, S. O. S., Neuve Chateau, France, has been promoted to the rank of lieutenant colonel.

Dr. Grant Augustine of Minden has been named by Judge Wheeler to take the place of Dr. J. M. Barstow, who died recently, as medical member of the Pottawattamie county insane commission. Dr. Augustine will move to Council Bluffs soon.

Dr. Cora Allen, formerly of Washington, Iowa, who has been in overseas service for more than a year connected with the Red Cross as a civilian relief worker, has returned and is studying children's diseases under Dr. A. H. Byfield at the new children's hospital at the University of Iowa. Dr. Allen has been a practicing physician in Iowa and Wisconsin for ten or twelve years.

Free surgical and dental clinics are announced at Fort Dodge. It is assumed that they are for school children. Very little of this important work has been undertaken in Iowa cities. For the purposes of co-ordination we would suggest that the Fort Dodge plan be published as soon as definite results can be determined.

Doctor E. O. Reynolds who gave up practice about seventeen months ago in order to serve his country, returned the first of June with an honorable discharge and has again opened up an office in Greenfield. He is located over Johnston & McCrea's meat

market. Dr. Reynolds on January 14, 1918, was placed in the Central Medical Department Laboratory at Ft. Leavenworth, Kansas. He was there until February 8 when he was sent to France on special meningitis work. After arriving in France he was sent to the Central Medical Department Laboratory A. E. F. Was on duty five weeks doing special work on blood transfusion. From there he was ordered to join the 2d Division and was placed in charge of a laboratory. Was with the 2d Division six weeks when he was ordered to join 77th Division with laboratory as division epidemiologist—looking after infectious diseases. He was with this division to the end of the war and returned with them landing in the U. S. May 6. While in France Dr. Reynolds was for a time on the Verdun front, then on the Vesle and was on Argonne Meuse when the armistice was signed.

Dr. Robert S. McNutt, mayor of Muscatine will represent the Tri-City street car employes on the arbitration board, which will start work tomorrow to adjust a new wage scale and working condition agreement between operating employes and the Tri-City Railway Co.

Dr. Paul W. Van Meter of Tipton, who spent several years as a medical missionary in Siam and who was on the faculty of the medical department of State University of Missouri at Columbia the past year, visited relatives here briefly while on his way to Rockwell City. He will locate in practice either at Cedar Rapids or Rockwell City.

Dr. George Bain Jenkins, professor of anatomy, in the University of Iowa College of Medicine, has resigned to join the Carnegie institute, at Washington, D. C. He will spend the summer at Long Island, N. Y., in the experimental station of Johns Hopkins Medical School, Baltimore, and will begin his new work at the national capitol in September. Dr. Jenkins has been connected with the S. U. I. faculty since 1916. He was graduated from the Kentucky School of Medicine in 1900.

Dr. W. G. Bessmer, newly appointed as an interne to assist Dr. Robert E. Jamieson at Mercy hospital, has arrived at his new post and has taken up his duties. Dr. Bessmer is a graduate of the Medical College at Iowa University, his former home being at Waverly, Iowa.

Capt. Elliott C. Cobb, 3229 Jackson street, has returned from overseas and will resume practice in Sioux City. His entire military service was with the British force in the Ypres sector in Belgium, chiefly. He was attached to the 12th Highland Light Infantry and the Sixth Black Watch Battalion. At the signing the armistice, Captain Cobb was on the front at Courtrai on the Sheldt river on the direct line to Brussels.

Capt. Park Findley is in the Mexican scrap. He is in the cavalry division which crossed to Mexico to stop Villa's rebel forces.

Dr. Ray S. Sycoff of the Iowa University College of Homeopathic Medicine, who came to Iowa City from Indianola, and became acting secretary of the

Y. M. C. A. here, has been appointed a medical missionary to the Island of Java by the Dutch government. He will go to the new post about August 1. He will be graduated from the H. M. College next week. He will have charge of a fine hospital erected by the Dutch government, 4,000 feet above the level of the sea.

Dr. Lester Powell of Red Oak, a graduate of the College of Medicine of the State University of Iowa, and for the last year an interne at the State Hospital at Iowa City, has accepted an internship with the Mayo Brothers at Rochester, Minn. The internship is for three years. Dr. Powell is particularly interested in abdominal surgery.

Dr. R. G. Coleman of Estherville has just received his appointment as physician and surgeon for the Dakota division of the Rock Island lines and his hospital has been designated as the Rock Island Hospital.

Dr. George Royal of Des Moines has returned from Asbury Park, N. Y., where he has been attending the American Institute of Homeopathy.

Dr. W. L. Griffin, who returned from the service a few months ago, has resumed practice in Charles City and has taken offices in the Ellis block, occupying rooms 22 and 23.

Dr. D. F. Mathias of Audubon has returned from overseas service and resumed practice. Dr. Mathias was with the British forces. After being gassed he was returned to the base hospital where he remained until the signing of the armistice.

Dr. W. S. Carpenter recently discharged from United States service will locate in Altoona, Iowa.

Lieut. Commander G. B. Crow of Burlington has returned home and will resume the practice of medicine.

Dr. Thomas F. Bess in medical service at Camp Dodge will soon be released and will return to Ft. Madison to resume practice.

Captain J. R. Walker of Ft. Madison has been discharged from the United States Army medical service and will resume practice in Ft. Madison.

Dr. A. G. Grau, recently discharged from United States Army medical service, will locate at Storm Lake.

Dr. R. S. Reimers of Ft. Madison has been appointed to the eye department of Santa Fe Ry. Co. at Ft. Madison.

Major Bruce R. Gilfillan, one of the very first Keokuk physicians to enlist for the world war, has arrived back home. He landed at New York May 23, and finally arrived at Camp Dodge for discharge from the army.

Dr. Louis Bauman has resigned and will practice his profession in New York City. He has been connected with the College of Medicine of the Iowa State University since 1911. He is an alumnus of the College of Physicians and Surgeons, Chicago.

Dr. Harry Dunlavy of Logan, lieutenant in the medical department of the U. S. A., has arrived home. He had been in a base hospital in France,

was at the front on the Meuse and the Argonne and later went to Coblenz, Germany.

Three of the Clarion doctors have formed a partnership under the firm name of Sams, Tompkins and Walker. The individual members are Dr. J. H. Sams, Dr. E. D. Tompkins and Dr. H. P. Walker.

Dr. J. E. King of Eldora recently celebrated his ninety-fourth birthday anniversary; his son, O. J. King and daughter, Mrs. Elizabeth Brookings, giving a family dinner in his honor. Dr. King went to Eldora in 1861, having previously made trips into California and South America.

Dr. Grant Augustine of Minden has removed to Council Bluffs.

Major Evarts A. Graham, formerly of Mason City, has accepted the chair of surgery at Washington University, St. Louis. Major Graham is now on duty at General Hospital No. 28, Ft. Sheridan, Ill.

Capt. O. H. Banton of Nora Springs who had front line service with the British Army and after the armistice was sent to the Scottish Orthopedic Hospital, Aberdeen, Scotland, has returned and located at Charles City, associated with Dr. W. L. Griffin.

Lieut. J. E. Edgington of Washington who has been "overseas" for several months, is now in the U. S. Military Mission, A. E. F. in Berlin.

Dr. Chas. B. Taylor of What Cheer has removed to Ottumwa.

Major F. W. Bowles of Ottumwa who has been in the service in France for nearly two years, has returned and received his honorable discharge at Camp Dodge. Major Bowles will locate at Quincy, Ill., where he will engage in practice.

Capt. A. D. McKinley of Des Moines, who entered the service a year ago and was sent to France in October where he served in base hospital No. 65, Kirknon Hospital Center, France, has returned and received his honorable discharge at Camp Dix, July 8. Capt. McKinley spent several days with his wife and daughter who are spending the summer at Menomonie, Wisc. He will resume his practice in Des Moines.

Capt. G. L. Atkins of Estherville has been honorably discharged from the service and resumed his practice.

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### MARRIAGES

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Dr. Edward Beck of Ft. Dodge to Anne V. Barrett, Cedar Rapids.

Dr. U. Labagh of Centerville to Mrs. Laura Moulton of Boulder, Colorado.

Dr. Francis H. Molynux of Des Moines to Miss Emma D. Pierce of Chicago.

Dr. Frederick H. Lamb of Mercy Hospital, Davenport to Miss Eugenia B. Lawler of Chicago.

Dr. O. P. Jamison of Weldon to Miss Clara C. Schmitz of Mount Pleasant.

Dr. O. H. Peterson of Lamoni to Miss Nina Haskins also of Lamoni.

Dr. Francis A. Ely of Des Moines to Miss Lula H. Lester.

## BIRTHS

To Doctor and Mrs. T. C. Cooper of Ogden, a daughter.

To Dr. and Mrs. Daniel F. Crowley of Des Moines, a daughter.

To Doctor and Mrs. Harry E. Plummer of New York City, a graduate of Drake, a daughter.

To Dr. and Mrs. R. R. Miller of Keota, a son.

## SENATE FILE NO. 94

An act relating to the public health, making and providing penalties for the violations of the provisions thereof, and repealing all acts in conflict herewith. Be it enacted by the General Assembly of the State of Iowa:

**Section 1. The Public Health—Venereal Diseases**—Syphilis, gonorrhea and chancroid, hereafter designated venereal diseases, are hereby recognized and declared to be contagious, infectious, communicable and dangerous to the public health.

**Sec. 2. Local Boards of Health—Diseased Persons—Physicians to Report**—It shall be the duty of every licensed physician, of every superintendent or manager of a hospital or dispensary and of every person who gives treatment for a venereal disease, to mail to the local board of health of the city, town, or township located in the State of Iowa, and where the disease occurs, a card or report blank supplied by the state board of health, stating the age, sex, color, marital condition and occupation of such diseased person, the nature and previous duration of such disease and its probable origin; such card or report blank to be mailed immediately after the first examination or treatment of such diseased person, provided, that except as hereinafter required, the name and address of such diseased person shall not be reported to the local board of health.

**Sec. 3. Circular of Information and Copy of Act—Duty of Physician**—It shall be the duty of every licensed physician and of every other person who treats a person afflicted with any venereal disease to give to such person at the first examination a circular of information and advice concerning venereal diseases, furnished by the state board of health; and in addition to give to such diseased person a copy of this act, furnished by said board, and to report to the local board of health that such diseased person has received the two documents herein specified.

**Sec. 4. Physician and Applicant for Treatment—Duties of**—When a person applies to a physician or other person for treatment of a venereal disease, it shall be the duty of the physician or person consulted to inquire of and ascertain from the person seeking treatment whether such person has heretofore, or previously, consulted with or been treated by any other physician, person or persons, for said diseases, and if so, to ascertain the name and address of the physician, person or persons last consulted. It shall be the duty of the applicant for treatment to furnish this information and a refusal to do so, or falsely

stating the name and address of such physician, person or persons consulted, shall be deemed a violation of this act. It shall be the duty of the physician, person or persons whom the applicant seeks to and does consult or employ to notify the physician, person or persons last consulted or employed, of the change of advisers, such notification to be made upon a form furnished for that purpose by the state board of health. Should the physician, person or persons previously consulted fail to receive any such notice within ten days after the appearance of such venereally diseased person, it shall be the duty of such physician, person or persons to report to the local board of health the name and address of such venereally diseased person.

**Sec. 5. Protection Against Infection—Duty of Local Board of Health**—Upon receipt of a report of a case of venereal disease, it shall be the duty of the local board of health to institute, for the protection of other persons from infection by such venereally diseased person, such measures as said local board of health is already empowered to use to prevent the spread of other contagious, infectious, or communicable diseases.

**Sec. 6. Reports of Cases Confidential, etc.**—All information and reports concerning persons infected with venereal diseases shall be confidential and shall be inaccessible to the public, except in so far as publicity may attend the performance of the duty imposed upon the local board of health and the laws of the State of Iowa, and to those injured by contracting said disease from said diseased person, and to public officers in the performance of their official duties.

**Sec. 7. Minors—Legal Responsibility of Parents**—The parents of minors acquiring venereal diseases and living with said parents shall be legally responsible for the compliance of such minors with the requirements or provisions of this act.

**Sec. 8. Suspected Cases—Investigation—Powers of Local Board of Health**—In all suspected cases of venereal diseases in the infectious stages, the local board of health shall immediately use every available means to determine whether the person or persons suspected of being infected or suffering from said diseases or any of them, and whenever any of said diseases are found to exist, the local board of health shall whenever possible ascertain the sources of such infection. In such investigations the local board of health and its health officers are hereby vested with full powers of inspection, examination, isolation, internment or quarantine, if necessary, and disinfection of all persons, places and things as provided herein, and as may be required by the state board of health or local board of health, except, in cases of persons known to the local board of health to be of good character and reputation, who are under treatment by a qualified and reputable physician, and are taking recognized precautionary measures to prevent the infection of others, these powers shall not be exercised.

**Sec. 9. Health Officer—Powers and Duties—Consulting Physician—Compensation, etc.**—It is hereby

made the duty of the health officer, for the county, municipality or community where he is appointed and for which he is to serve, and he is hereby directed and empowered:

(a) To make examinations of persons reasonably suspected of having syphilis in the infectious stages, gonococcus infection or chancroid, except as provided in section eight (8), and if any evidence of such disease is disclosed by said examination the local board of health is hereby empowered to isolate, intern or quarantine such person a reasonable length of time in order to fully determine the extent of such disease.

(a-1) Any person, subjected to examination under this act, may demand that another physician shall also make an examination, and when this is done, the president of the local board of health shall name such physician, and, in case of disagreement, the health officer and this physician shall agree upon a third physician to make an examination, and the decision of two shall determine the action to be taken as to isolation, internment, quarantine, or release.

(a-2) The compensation of physicians, other than health officers, for making examinations under this act, shall be five dollars (\$5), to be paid in accordance with the usual procedure for the payment of quarantine bills.

(b) Under the order of the local board of health, to isolate, intern or quarantine, if necessary, persons infected with any of said diseases whenever isolation, internment or quarantine is essential to protect the public health. In establishing isolation, internment or quarantine, the health officer, under the direction of the local board of health, shall define the limits of the area in which the persons reasonably suspected or known to have syphilis, gonococcus infections or chancroid, are to be isolated, interned or quarantined, as the case may require, and no persons, other than the persons attending the treatment of such case shall enter or leave the area of isolation, internment or quarantine without the permission of the local board of health and the health officer.

(b-1) In case the person isolated, interned or quarantined is unable to meet the expenses incident thereto, such expenses, including medical and surgical services, nursing and care, shall be provided as in cases of quarantine for other diseases, and the president of the local board of health shall name a physician to render the necessary medical and surgical services, unless the board of supervisors have previously made provision for the same.

(c) In making examinations and inspections of women for the purpose of ascertaining the existence of syphilis, gonococcus infection or chancroid, to appoint women physicians for said purposes where the services of a woman physician are requested or demanded by the woman to be examined.

**Sec. 10. Quarantine—Termination of**—In case of isolation, internment or quarantine, the local board of health and the health officer shall not terminate said isolation, internment or quarantine, until the cases have become noninfectious—the same to be de-

termined as provided for examinations in section 9 (a-1), if the isolated, interned or quarantined person shall so elect—or until permission has been given by the state board of health or its secretary-executive officer.

Cases of gonococcus infection are to be regarded as infectious until at least two successive smears, taken not less than forty-eight hours apart, fail to show gonococci.

**Sec. 11. Prostitution—Suppression of, etc.**—The local board of health, its health officer, and all other officers enforcing the provisions of this act shall use all proper means of suppressing prostitution, and all such officers are hereby prohibited from issuing certificates or other evidence of freedom from venereal diseases.

**Sec. 12. Inspection of Records**—The local board of health and the health officer shall withhold from public inspection all records of inspections and examinations made under the provisions of this act, and shall make every reasonable effort to keep secret the identity of those affected by measures adopted to control venereal disease, as far as may be consistent with the protection of the public health; provided that all records shall be open to inspection by law enforcing officers, and to such persons as are injured by one who is infected with such disease.

**Sec. 13. Detention Hospital—Equipment, Medical Attendance, etc.**—When in the judgment of the board of supervisors of any county or when advised or notified by the state board of health acting with the United States public health service, it is necessary to provide a detention hospital in a county for the isolation, internment or quarantine of venereal diseases, said board of supervisors may contract for the erection, erect, purchase or rent, equip and maintain a detention hospital, which shall be erected, purchased, rented or equipped, in accordance with plans and specifications provided in advance by the state board of health, and it is hereby made the duty of the health officer and the local board of health to use only such building or buildings for detention, isolation, internment or quarantine of persons afflicted with venereal diseases as shall be provided and established under the provisions of this act, and under suitable administrative rules prescribed by the state board of health for the conduct thereof.

(a) The board of supervisors shall appoint and fix the compensation of a qualified physician and surgeon and such nurses and other attendants as may be necessary to provide proper treatment and care for persons interned, from time to time, in such detention hospital.

**Sec. 14. Hospital Fund—Special Tax Levy—Authorization**—The board of supervisors shall have the power to levy a tax upon all the property in said county subject to taxation, in addition to all of the taxes now provided by law, a special tax not exceeding in any one year two (2) mills on the dollar for a period of years not exceeding fifty (50), for the purchase of real estate for hospital purposes, and for the construction, purchasing or renting of such hospital

and for equipping, and maintaining the same, for either or all of such purposes. The tax so authorized shall be collected and paid over to the treasurer of such county in the same manner as other taxes are collected. The proceeds of such tax shall be known as the hospital fund, and shall be paid out on the order of the board of supervisors for the purposes authorized by this act, and for no other purpose whatever.

**Sec. 15. Hospital Bonds—Issue Authorized—When Due**—Any county may anticipate the collection of the tax herein authorized to be levied, and for that purpose may issue interest bearing bonds at a rate of interest not to exceed five (5) per cent. per annum, to be denominated hospital bonds, and the said bonds and the interest thereon shall be secured by said assessment and levy, and shall be payable only out of the proceeds of the special tax provided for in the preceding section, and no bonds shall be issued in excess of taxes authorized to be levied to secure the payment of the same. It shall be the duty of the treasurer of such county to collect said tax and to hold the same separate and apart in trust for the payment of said bonds and interest, and to apply the proceeds of said special tax pledged for that purpose to the payment of said bonds and interest. Such bonds shall be issued and sold in accordance with the provisions of existing statutes relating to the issuance and sale of bonds by counties. In issuing such bonds the board of supervisors may cause portions of the same to become due at different definite periods, but none of such bonds so issued shall be due and payable in less than three (3) or more than fifty (50) years from date.

**Sec. 16. Quarantine and Treatment**—Whenever it is necessary, in the judgment of the local board of health and the health officer, for the protection of the public health that persons infected with venereal diseases be quarantined, the health officer and the mayor or township clerk, as the case may be, shall quarantine such diseased persons in said detention hospitals and cause to be administered to such persons a proper course of treatment.

**Sec. 17. Release on Bond in Lieu of Quarantine—Procedure**—In lieu of isolation, internment or quarantine, any person, except a prostitute, infected with any of said venereal diseases may be released upon bond as herein provided. Such person shall make written application therefor to the local board of health, which application must be made under oath and must state that the applicant is not a prostitute. Such application shall be accompanied by a certificate signed by either the mayor, the chief of police or peace officer or the municipal judge or justice of the peace of the city or town where the case occurs, or in township by the township clerk or township trustees, stating that the applicant is not a prostitute. The applicant shall then file with the county auditor a bond in the penal sum of one thousand dollars (\$1,000.00) conditioned that the applicant will not permit or perform any act which might or would infect or expose to infection any other person, and

will continue treatment until cured and will faithfully observe all rules, regulations and requirements of the state board of health, local board of health and the health officer to protect the public against infection or contagion. Said bond shall run to and for the benefit of the county wherein the venereal disease occurs, and shall be signed by one or more freeholders as sureties, to be approved by the county auditor, provided, however, that a cash guaranty in a like amount may be accepted in lieu of such bond. Before any person is released from any such bond as cured, a final examination and approval of the health officer must be secured, and permission from the state board of health or its secretary-executive officer obtained, except, that in securing the approval of the health officer, the same procedure, provided for examinations in section 9 (a-1), may be taken.

**Sec. 18. Disease Transmission—Misdemeanor—Punishment**—Any person afflicted with any of the diseases named in this act, who shall transmit, or assume the risk of transmitting the same by intercourse, to another person shall be guilty of misdemeanor, and upon conviction thereof be fined in the sum of not to exceed five hundred dollars (\$500.00) or imprisoned in the county jail not to exceed six months, or both such fine and imprisonment; and in addition thereto, shall be liable to the party injured for all damages sustained by reason of said injury.

**Sec. 19. Sale of Specifics—Record of—Copy to Health Officer**—Any druggist or other person who sells any drug, compound, alleged specific or preparation of any kind used for the cure of any of said venereal diseases shall keep a record of the name, address, and sex of the person making such purchase. A copy of said record shall be mailed each week to the health officer of the county, city, town or village wherein the drug, compound, specific or preparation for the treatment of these venereal diseases was sold.

**Sec. 20. Order of Health Boards—Neglect of, Unlawful**—It shall be unlawful for any person to neglect or refuse to obey any order of the state or local board of health, authorized by this act, or to interfere with or obstruct said state board of health or local board of health, or the representative of either, in the discharge of any of their duties under this act.

**Sec. 21. Provisions of Act—Violation of—Punishment for**—Any person violating any of the provisions of this act shall be punished by a fine of not more than five hundred dollars (\$500.00) or by imprisonment in the county jail for a period not to exceed six months or by both such fine and imprisonment.

Any physician or surgeon who shall be called upon to treat professionally any one afflicted with syphilis, gonorrhea, or chancroid, except as provided in section eight (8), who shall fail to report the same to the local board of health immediately after the first examination of such diseased person, and as provided for in section 2 of this act, shall be guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not more than five hundred dollars

(\$500.00) or by imprisonment in the county jail for a period of not to exceed six months or by both such fine and imprisonment, and upon conviction the state board of medical examiners may revoke his license or certificate authorizing him to practice medicine, surgery and obstetrics in the State of Iowa.

**Sec. 22. Appropriation**—The sum of fifteen thousand dollars (\$15,000.00) or so much thereof as may be necessary, is hereby annually, for the years 1919 and 1920, appropriated to carry out the provisions of this act, and such requirements as shall be made by the United States public health service in eliminating the venereal diseases, syphilis, gonorrhea, chancroid and ophthalmia neonatorum from the state.

**Sec. 23. Acts in Conflict Repealed**—All acts or parts of acts in so far as they are in conflict herewith are hereby repealed.

**Sec. 24. Publication Clause**—This act being deemed of immediate importance shall take effect and be in force from and after its publication in the Des Moines Capital and in the Des Moines Register, newspapers published in Des Moines, Iowa.

Approved April 22, A. D., 1919.

## BOOK REVIEWS

### SEX AND SEX WORSHIP (PHALLIC WORSHIP)

and Function and its Influence on Art, Science, Architecture and Religion, with Special Reference to Sex Worship and Symbolism. By O. A. Wall, M.D., Ph.G., Ph. M., of 607 Pages and 372 Illustrations. Price \$7.50. C. V. Mosby Company, St. Louis, 1919.

This book, while not strictly a medical work, appeals to the student of the evolution of the human race and illustrates the traditions of earlier times when sex relations and reproduction were shrouded in mystery. It is shown that sex conditions appealed to the primitive man in a peculiar manner and largely influenced religious feeling and customs, when young men were sacrificed to the god of war and when virgins were sacrificed to propitiate angry gods who demanded the offering up of the most valuable gifts of nature. Nearly all religions at one time or other employed sex symbolism to express some mystic feeling. This is shown in the illustrations in old books. In art and architecture the human form was used to express a sentiment, as life and death, change of seasons, etc. The master pieces in painting and sculpture at a time when painting and sculpture had risen to its greatest height in Greek and Roman art, the nude figure was employed to represent the highest ideals. The author brings to us many religious customs in which the sex relations formed an important feature and later, the orgies practiced under the exercise of certain pagan religions. The author has reproduced many old prints and plates presenting the sex idea in religion and art. While the greater part of the book is devoted to the employment of the

nude to illustrate ancient art and in the mysticism of religion, a part is also devoted to sexual excesses under the name of religion. The purpose of the book is not to bring before the reader sexual relations and excesses, but to bring before us a part of the history of the human race and the origin of the symbolism in religion and art which are employed to this day. The book is full of interest and replete with information as to the customs of the early days of the most advanced civilization and of the practices of peoples recently brought under the influences of advanced nations which are not now entirely free from ancient superstitions.

### A TEXT-BOOK OF PRACTICAL THERAPEUTICS WITH ESPECIAL REFERENCE TO THE APPLICATION OF REMEDIAL MEASURES TO DISEASE AND THEIR EMPLOYMENT UPON A RATIONAL BASIS.

By Hobert Amory Hare, M.D., B.Sc., Professor of Therapeutics, Materia Medica and Diagnosis in the Jefferson Medical College of Philadelphia. Physician to the Jefferson Medical College Hospital, etc. Seventh Edition Enlarged, Thoroughly Revised and Largely Re-written. Illustrated with 141 Engravings and 6 Plates. Lea and Febiger. Price \$5.50.

This book is so well known through former editions that little beyond the announcement of the seventh edition seems necessary. It should be noted, however, that Dr. Hare places particular stress on the bedside application of remedial measures as the final test of their value. While it may be admitted that experimental therapeutics has great scientific value the experience of many trained practitioners will serve to guide in checking up and correcting some of the errors of the enthusiastic experimenter. Several additional therapeutic measures have been introduced since the appearance of the last edition and older remedies are carefully reviewed and appraised and the text relating to older remedies has been revised bringing the book to the latest reliable views of therapeutics.

### THE OPERATIONS OF OBSTETRICS EMBRACING THE SURGICAL PROCEDURES AND MANAGEMENT OF THE MORE SERIOUS COMPLICATIONS.

By Frederick Elmer Leavitt, M.D., Formerly Assistant Professor of Obstetrics and Gynecology, University of Minnesota; Obstetrician to the City and County Hospital, St. Paul Hospital, The Bethesda Hospital, etc., St. Paul, Minnesota, With 248 Illustrations. C. V. Mosby Company, St. Louis, 1919. Price \$6.00.

The author at once announces the fundamental proposition that the same principles of asepsis should

be observed in obstetric surgery that apply to other surgery and proceeds to point out the dangers of infection and the methods of disinfecting the parts involved in surgical procedures. A brief consideration is given anesthesia. Two chapters are given to indications, conditions and dangers to mother and child, including artificial interruption of pregnancy, spatial inadequacy, displacements, etc. Conditions due to concurrent affections, tuberculosis, heart disease, nephritis and other conditions. Methods in inducing abortion are described. Chapter four is devoted to methods of dilating a rigid cervix. A chapter is given to the merits of symphyseotomy, pubotomy by the open or closed methods compared with competing operations, as Cesarean Section, induction of premature labor, craniotomy, forceps, etc. Chapter seven is devoted to the operation of version, with illustration cuts. The dangers of this procedure are printed out. Breech births are well illustrated in chapter eight and forceps operations in chapter nine. This chapter is finely illustrated. Two chapters described the trying operations of perforation and cranioclasia and embryotomy. Two chapters are given to the more scientific and rational operation of Cesarean Section including the preparation of the patient, the method of procedure and the after treatment.

Part second of the book considers the third stage of labor and the serious complications that may arise. These include the placenta, inversion, post partum hemorrhage, rupture of the uterus and the lacerations that may occur and their reparation. Deformities and anomalies, contracted pelvis and tumors of the uterus which may interfere with delivery are considered.

The author does not as a rule interpose his own views as to the best methods to be employed, but rather describes and illustrate the generally approved methods of procedure and treatment of the complications that may arise in obstetrical practice. The book is an attractive and useful guide to the obstetrical practitioner and to the general practitioner who sees many cases of child birth and who feels that need of a ready preparation for the distressing complications that may arise.

#### PROGRESSIVE MEDICINE

A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M.D. and Leighton F. Appleman, M.D., Jefferson Medical College, Philadelphia. Lea & Febiger, March 1, 1919. Price \$6 Per Annum.

The section on Surgery of the Head, Neck and Breast is prepared by Charles H. Frazier. Dr. Frazier presents a general review of gunshot injuries of the brain and skull. An immense amount of literature has been prepared on this subject. Much of this material is from the hands of surgeons of the highest authority. The time will soon arrive when this ma-

terial should be correlated by some master surgeon for easier access and its value more definitely appraised. No one is better qualified for this task than Dr. Frazier who has in this number of "Progressive Medicine" given us sixty pages of review. Dr. Frazier has reviewed the literature of salivary fistula and gunshot injuries of the jaw. New interest is manifested in the use of radium, which is referred to in the treatment of cancer of the lip and in cancer of the breast, as pointed out in this digest.

The Surgery of the Thorax is reviewed by Dr. George P. Muller of the University of Pennsylvania. This, like the previous section, is devoted chiefly to war injuries and is a reappraisal of many observations made during the war under the head of "Infectious Diseases." Dr. John Ruhrah of the University of Maryland, presents an extensive digest of the literature on acute rheumatism, croupous pneumonia, influenza, etc. Considerable space is given to trench fever and other forms of acute infection, both in civil and military life.

The literature on "Diseases of Children" is reviewed by Dr. Floyd M. Crandall of New York and contains much interesting matter. Dr. George L. Richards of Fall River, Mass., presents an outline of military otolaryngology.

#### SURGICAL TREATMENT

A practical Treatise on the Therapy of Surgical Diseases for the use of Practitioners and Students of Surgery. By James Peter Warbasse, M.D., Formerly Attending Surgeon to the Methodist Episcopal Hospital, Brooklyn, New York. In Three Large Octavo Volumes and Separate Desk Index Volume. Volume Three Contains 861 Illustrations. W. B. Saunders Company, 1919. Price Per Set, Three Volumes and the Index Volume, Cloth, \$30.00.

The third volume of this excellent work on surgery just issued from the press contains a relation of the surgical treatment of special organs.

The first is the treatment of hernia; a few pages are given to non-operation treatment, application of a truss in children and very old or feeble patients. In the operative treatment of hernia the principles to be employed to secure the best results in a given case are pointed out, without particularly describing operations bearing different names. Then follows diseases and operations on the rectum and anus and the vermiform appendix. It is generally believed that almost every medical graduate can operate on the appendix. Even so, a better understanding would come to many surgeons from reading the chapter on this subject in Warbasse surgery. The surgery of the gall-bladder and bile tract has been so thoroughly worked out that there is little to say but to point out an approved method of procedure, which has been well done, both in text and in illustrations.

The surgery of the genito-urinary tract is much more complicated and difficult and no surgeon should

undertake this work without careful study and much observation of the work of long experienced surgeons. Errors of diagnosis and of procedure are often serious in their consequences. The author has taken this fact into consideration in the preparation of this section of the book. The anatomical relations of the genito-urinary tract are considered in considerable detail. Methods of diagnosis of the functional capacity of the kidneys and the use of instruments to determine the condition of the kidneys and bladder are pointed out. Having completed the diagnosis and having determined what should be done the surgeon is in a position to adopt a technic which will best accomplish the desired results. We can only touch a few points in review of this most excellent section. The operation for prostatic hypertrophy particularly invites the attention of a large number of general surgeons. The author is of the opinion that the choice of operation is largely a matter of adaptability of the surgeon. Some surgeons are more skilled in the perineal rout, others in the suprapubic rout. The choice is to be determined by the individual case and not by a dogmatic preference for either. The female generative organs come in for a fair degree of consideration of a very practical character. The best part of the work as it appears to us is the attention given to diseases and deformities of the extremities. This should appeal to the general surgeon in a very particular manner for it means so much to the average individual who has his way to make with the greatest comfort and efficiency. This includes deformities, accidents, amputations, plastic operations, injuries from electric currents, first aid bandaging, etc. We cannot say too much in commendation of this most excellent work, both in the character and arrangement of the material from the standpoint of the surgeon and in the make-up of the three volumes and the index which should be credited to the enterprising publishers.

#### UNIVERSITY OF IOWA STUDIES IN MEDICINE

Collected Studies and Reports. Volume I,  
Number 5. Published by the University.

These studies are made up of papers prepared by different members of the medical faculty and published in certain special journals and for convenience of the medical public are collected in numbers which will ultimately reach into volumes. These papers are very creditable to the state and the profession.

#### NEW AND NON-OFFICIAL REMEDIES

During March the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion with New and Non-official Remedies:

Swan-Myers Company:

Swan's Mixed Acne Bacterin (No. 41).

Swan's Pertussis Bacterin (No. 38) (Prophylactic).

Swan's Mixed Furunculosis Bacterin (No. 39).

Swan's Typhoid-Paratyphoid Bacterin (No. 42) (Prophylactic).

During April the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion with New and Non-official Remedies:

Non-Proprietary Articles:

Mercurialized Serum.

Diphtheria Toxin-Antitoxin Mixture.

Abbott Laboratories:

Barbital-Abbott Tablets, 5 grains.

Lederle Antitoxin Laboratories:

Anti-Anthrax Serum (Lederle).

Antidysenteric Serum (Polyvalent) (Lederle).

Tuberculin von Pirquet Test ("T. O.") (Lederle).

Tuberculin Subcutaneous Test ("T. O.") (Lederle).

Tuberculin "B. E." (Bacillus Emulsion) (Lederle).

Tuberculin "B. F." (Bouillon Filtrate) (Lederle).

Streptococcus Vaccine, Polyvalent (Lederle).

Paratyphoid Vaccine (Lederle).

Schick Test (Lederle).

Mercurialized Serum-Lederle.

Diphtheria Toxin-Antitoxin Mixture-Lederle.

During May the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion with New and Non-official Remedies:

Abbott Laboratories:

Liquor Hypophysis, U. S. P. Abbott.

Procaine Hypodermic Tablets  $\frac{3}{4}$  grain.

Procaine-Adrenalin Hypodermic Tablets—Abbott.

Gilliland Laboratories:

Antimeningococcic Serum (Combined Type) (Gilliland).

Diphtheria Antitoxin, Concentrated and Refined.

Tetanus Antitoxin, Concentrated and Refined.

Antipneumococcus Serum Type I.

Smallpox Vaccine.

Original Tuberculin "O. T."

E. R. Squibb and Sons:

Protargentum—Squibb.

During June the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion with New and Non-official Remedies:

Robert McNeil:

Chlorcosane (McNeil)

Dichloramine-T (McNeil)

Lederle Antitoxin Laboratories:

Pituitary Extract-Lederle

Ampules Pituitary Extract-Lederle, 0.5 cc., 1 cc.

Tuberculin "O. T." (Old Tuberculin)

Tuberculin "B. E." (Bacillary Emulsion)

Tuberculin "B. F." (Bouillon Filtrate)

Antidysenteric Serum (Polyvalent)

Streptococcus Vaccine (Polyvalent)

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## MENTAL HYGIENE AND THE WAR\*

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Out of the carnage of war has come great possibilities for the development of the science and art of mental hygiene. Also, has come a stupendous demonstration of the value of team work in medicine; an ideal of service which in this great war has woven and grouped human values in organized endeavor. Combined, these possibilities and values, have given purpose and direction to the highly efficient production of medical service, and guided its distribution, that creative endeavor should not be aimless in integrating all that has been of value, nor lacking in its cooperative possibilities for the future of mental hygiene.

It will be some time before the data are available, from which philosophical deductions can be made, that will lead to special programs for advanced thought in the progress of mental hygiene. But sufficient experience has been accumulated in clinical observation, and sufficient statistical data collected, to give confirmation of the principles of mental hygiene and reinforcement to its ideals, to make the subject of "Mental Hygiene and the War," one fitting for us to discuss on this occasion.

When I speak of mental hygiene I must preface my remarks by its definition. By the term mental hygiene is meant, the science and art of conservation of the mental health of a people, by a study of the ways and means to prevent nervous and mental disorders; to preserve the integrity of the mental status of individuals and to study, not only the problems of the individual with reference to these desired ends, but to have comprehensive knowledge of all of the factors which enter into these problems. This implies a wide range of familiarity with the sciences having to deal with the individual as regards his behavior, his mental mechanisms, his susceptibility and reactions to

his environment, which in its broad sense, includes physical environment as well as the training, home, educational and social factors; his heredity, upon which tremendous emphasis has been laid in evaluating the mental potentials of an individual, and last, but not least, our ability to recognize that the combined factors of training, environment and heredity should be considered with equal weight in summing up a progressive program for advancement of the science and art of mental hygiene.

Huntington well says, "On a fateful day in August, 1914, the ship of human progress crashed upon a rock. Though battered and broken by a terrific tempest, she still hangs together after four years of pounding on the reef of militarism."

In this great cataclysm, all sciences received an impetus to lend their forces in meeting the demands, not only to bring to a successful issue the combat period, but to find palliatives and cures for the suffering, and severe turbulences of mankind which are inevitable in the wake of war. Therefore, strong nations were aroused to their utmost, and never before in history has inventive genius met the problems of war with more constructive thought, destined to hold together, though torn, the wonderful fabric of civilization. Out of this maelstrom with its social crises have come ideals with evolutionary potentials, which suggest greater benefits to the human race. Again, is the great law of compensation, delineated by Emerson, to work for the destiny and strengthening of the social fabric.

Mental hygiene, in this war, had its first official recognition in the history of the American army and navy. The sciences dealing with mental health (integral parts of the science of mental hygiene) had the opportunities presented, recognized them and attacked the fundamental problems essential in the making of the best use of the mental power of our country. Also, of estimating the biological potentials of this mental power, directing its latent possibilities and selecting types, not only strong mentally but morally, that their talents may be used to the best advantage in war service.

\*Address in Medicine before the Iowa State Medical Society at  
Des Moines, May 8, 1919.

The chronological events in the recognition of mental hygiene with its component, allied and essential sciences, viz.: psychiatry, neurology, psychology and social hygiene, will some day be tabulated and given deserved place in the history of war medicine.

The essential science, psychiatry, which, as it has proven in this war, deals not only with the immediate affairs of the individual, but with all that concerns his welfare, really is sufficiently comprehensive in its scope in considering the affairs of man, to cover the whole field of mental hygiene. But it was mental hygiene which opened the way for psychiatry and psychology to have stable, dependable, organized services, adaptable to the great biological and sociological integrations of men, as soldiers, with their very varied problems.

The national committee for mental hygiene entered upon a program of war activities early in April, 1917, when the president, Dr. L. F. Barker, appointed a special committee consisting of the medical director, Dr. Thomas W. Salmon, Dr. Pearce Bailey and Dr. Stuart Paton, for the purpose of "inducing the Federal government to provide adequately for the cases of nervous and mental disorders that will occur in the United States Army and Navy during the war." This committee, after visiting the hospitals of the army in the southern department and the disciplinary barracks at Fort Leavenworth, Kansas, formulated plans and submitted resolutions for organizing the neuro-psychiatric units as a part of the government's hospitals for the army and navy. These plans were discussed with the surgeons general of the army, navy and public health service. Let it be said, that of equal importance to the clinical side of mental hygiene, there were noted the specific needs for psychiatry, to apply its science and art to the study of the individual engaged in war, and his relation to the responsibilities of war's activities, in which he was to share, both as an individual, and as an integral in the "community problems" of the army and navy as a whole.

The resolutions transmitted to the surgeon general of the United States Army were favorably received and formed the working basis for an alliance between the surgeon general's office of the United States Army and the national committee for mental hygiene, which alliance still exists and has proven its worth by the creation and elaboration of the division of neurology and psychiatry, and the stimulation to the recognition and final creation of the division of psychology. Both divisions, with their creative work, being fundamental to the science of mental hygiene.

To better enable the Federal government to approach the varied and perplexing nervous and mental problems, destined to arise in the personnel of the army and navy, and to profit by the accumulated experience of England and France in handling these problems, the medical director of the national committee for mental hygiene, Dr. Thomas W. Salmon, visited England and France. The purpose of this visit, as stated by the Rockefeller Foundation, in making the appropriation to the national committee for mental hygiene, was "for the study of the prevalence of nervous and mental disorders in the military forces, and the kind of provision needed for the care both at the front and at home, and the most practical methods of receiving, classifying and distributing nervous and mental cases and the standard by which recovery is determined and convalescents are returned to the colors."

Doctor Salmon sailed May, 1917 and returned in July, 1917. A full report was made to Surgeon General Gorgas (parts of this report were published in *Mental Hygiene*, July and October, 1917). Upon the basis of this report full organization and administrative plans were developed, and Doctor Salmon accepted a commission as major in the Medical Officers Reserve Corps and was assigned to the surgeon general's office in Washington, to assist in speeding up the organization and administration of the division of neurology and psychiatry.

The national committee for mental hygiene proceeded in its activities by appointing the mental hygiene war work committee of which Dr. Pearce Bailey was made chairman. In July, 1917, Doctor Bailey was commissioned major in the Medical Officers Reserve Corps and ordered to the office of the surgeon general in Washington. Dr. Frankwood E. Williams, associate medical director and vice-chairman continued the work of organization of the war work committee, until he, too, was called for service in the surgeon general's office.

The national committee for mental hygiene was active in securing the personnel of medical officers to man the neuro-psychiatric units and to complete the organization and administration of the division of neurology and psychiatry, taxed the resources of our country, and ere the signing of the armistice revealed the fact that as large as is this country of ours, trained psychiatrists and trained neurologists are comparatively few.

Applications were received, through the office of the national committee for mental hygiene, for commissions in the Medical Officers Reserve Corps of the U. S. Army, from psychiatrists and neurologists from all over the country.

At the close of hostilities the personnel consisted of about 750 psychiatrists and neurologists in service, with about 150 more applications favorably acted upon and commissions would have been issued had the war continued, with 140 more applications awaiting consideration. To secure the last 250 applications this country was systematically combed in order to secure physicians, some with a minimum experience, some with no experience, but a willingness to be trained for the work. For the training of physicians special courses in war neuro-psychiatry were instituted, through the national committee for mental hygiene, at the Boston Psychopathic Hospital; New York Neurological Institute, Psychiatric Institute, New York; Philadelphia General Hospital; Phipps Psychiatric Clinic, Baltimore; State Psychopathic Hospital, Ann Arbor, Michigan.

An interesting historical fact in the development of the great plan of mental hygiene in the war was the appropriation by the national committee for mental hygiene of \$2500 for experimental psychological examinations in four American camps. The report of these results was made to the war department which lead to the inclusions of psychological examinations in every camp and ultimately to the creation of the special division of psychology with Major Robert M. Yerkes as charge officer of the division. The value of the work of this division created, as you know, much constructive interest among thoughtful people and is one of the triumphs of mental hygiene in this war.

The organization of the machinery of the division of neurology and psychiatry was fairly complete by January 1, 1918, at which time neuro-psychiatric wards had been established in each cantonment. Larger neuro-psychiatric hospitals to serve as receiving centers from cantonments in the vicinity had been established at five points. The part of divisional psychiatrist had been created. The plans for work in the American Expeditionary Forces had been prepared under the direction of Major Thomas W. Salmon, who was ordered overseas in December, 1917, and later as Colonel Salmon, as chief consultant in neurology and psychiatry of the American Expeditionary Forces, perfected the organization and directed its efficient service.

Thus, in due time, under the hurry of war's pressing demands, the organization of neuro-psychiatric service was brought together to meet the demands of a service new in a great measure in army organization; new in clinical interpretations, both in the stupendous numbers of cases and the evolution of therapeutic attack of the problems. As was mentioned in the beginning of

this address, the value of team work, in medicine, was one of the great triumphs of the organized work of the war and what has been done in mental hygiene owes its success to the team work valiantly pursued under all conditions of service.

In order that you may appreciate the fullness of this statement let me call your attention to the report of the Provost Marshall General where the results of the team work of local boards are noted and in which, I dare say, the majority of you participated.

To appreciate the enormous amount of medical work that has been done one really must study this report in detail. But our subject today limits us to the consideration of the scope of work as found within the field of mental hygiene. The accepted enlisted men came under the observation of the division of neurology and psychiatry.

The following brief abstract from the Provost Marshall General's second report, from May 18, 1917 to December 20, 1918, gives the findings of 3,208,446 men physically examined under the selective draft law of whom 521,608 were rejected as absolutely unfit for military service; 2,259,027 were accepted as physically fit for active service in any capacity. Expressed in percentages 16.25 per cent. were absolutely unfit; 70.41 per cent. were fit. To the 16.25 per cent. may be added 2.76 per cent. with disorder remedial by proper treatment. There were 10.48 per cent. unfit for active military service. In 467,694 rejections there were coming within the scope of mental hygiene the following:

Alcohol and drugs.....	2,007	.43%
Mental deficiency .....	24,514	5.24%
Nervous and Mental Disorders.....	23,728	5.07%
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Total.....	50,249	10.74%

The statistics for the State of Iowa in which I know you are all interested are grouped under two headings, viz.: Mental Deficiency and Nervous and Mental Disorders, and appear as an appendix to this address.

The highest number of rejections were at the recruit depots.

Now, having seen the operation of selective draft with reference to the field covered by mental hygiene let us endeavor to interpret the results in the terms of mental hygiene, as applied to military needs. The surgeon general of the army, in his report for 1918, says, "The real value to an army of neuropsychiatrists is the prevention of the occurrence of nervous and mental disease among troops—a prevention which is accomplished by the barring from enlistment of all men actually suffering from limitations or strongly

predisposed to them. This group comprises, as established by civil statistics 1 to 5 per cent. of the total male population in the draft age, and is composed of the same class as the immigration laws bar from admission into the United States. The diseases or conditions are in the order of frequency: 1. Feeble-mindedness; 2. Epilepsy. 3. Insanity; 4. Psychopathic constitutional make up.

The surgeon general says, "It would seem that a cross section of American young men, as represented by the draft army, contained a smaller percentage of undesirable persons than are found in equal numbers of volunteers."

The neuro-psychiatric examinations served a double purpose:

First—On the one hand they kept out of military service men who would have become a charge upon the government without having rendered material service.

Second—A smaller number of soldiers became insane than has been the experience in armies when no effort has been made to exclude them.

Military experience actually initiates mental disorder in the predisposed individuals, which mental disorder may not have occurred if such service was not rendered. Contrary to the general rule of the improvement of health of recruits under training, members of this particular class do not improve but on the contrary, a potential condition becomes actual. Another, a very valuable function of the service of the psychiatrist was to assist in the attainment of military justice, a subject very much discussed in the latter months of the war and yet being thrashed out as regards the manner and form of courts marshal. But of the real essential studies of maladjustment of individual soldiers leading to infringement of military discipline, the psychiatrist has rendered a great and humane service in this war. The study and understanding of psychopathic traits, with revelations of inefficiency to meet the demands of military service, and the forensic importance of the inadequacies producing the perverse activities, all, when studied in the light of modern psychiatry, certainly has contributed to military justice and added to the dignity and honor of psychiatry as a specialty in medicine. Another and very valuable contribution to the field of mental hygiene which has given interpretive values to the statistical data originating in the examination of the enlisted men, was the work of the division of psychology. As before stated in this address the experimental values of psychological examinations originated with the national committee for mental hygiene's appropriation of \$2500 for "a try out" in four camps, of such tests. The sur-

geon general's report for 1918, says concerning the value of this work:

As a result of psychological examinations it is indicated clearly the value of the work for the elimination of men mentally defective, the balancing of organization in mental strength; the classification of men for the assistance of personnel officers in the camps, and the identification of men of exceptional intelligence to be charged with special responsibility or sent to officers training camps.

The work was so favorable and valuable an asset that a comprehensive plan was developed early in 1918 whereby officers were trained and necessary ways and means prepared to make examinations of all soldiers. During April and May, 1918, examinations were conducted in 25 camps, later other camps and hospitals were added so that by April 1, 1918, 600,000 soldiers had been examined, and plans were made to make the results of such examinations an essential part of the qualifications for military service. Of the number of soldiers examined slightly more than one-fourth of one per cent. had been recommended by psychologists to psychiatrists for discharge for mental deficiency and one-half of one per cent. had been recommended for assignment to service organization or development battalions because of mental deficiency.

The facts brought out by these observations show how valuable indeed are the applied preventive measures of mental hygiene. The surgeon general emphasizes the importance of prevention over therapeutics in these words, because "from a purely military point of view, the number who break down nervously under service conditions and who can be returned to duty in a reasonable length of time is small as compared to those who break down from other causes." Yet the returns from the American Expeditionary Forces show that 17 per cent. of all medical cases (as distinguished from surgical) are nervous and mental cases—a larger proportion in fact than any other class of cases, tuberculosis not excepted. That 6 per cent. of all cases, medical and surgical combined, are classed as nervous and mental. The returns of the American Expeditionary Forces also show the value of prompt first aid in treatment. In order that we may have a more comprehensive view of the clinical problems of neuro-psychiatry, it is fitting that we hastily review the great, formidable and unprecedented demand for their solution thrust upon the medical profession as the aggressions of war produced them. It was in anticipation of meeting these demands squarely by the medical corps of the army that Dr. Thomas W. Salmon, medical director of the national committee for mental hygiene, made

his visit to England and France, that he could see at first hand, how the stress of war, then in existence for three years, had precipitated these problems in nervous and mental disorders. Also, how they were being met in the organized medical service of the armies of England and France; their facilities for treatment, administrative methods and management. Doctor Salmon's report emphasized the importance of the war neuroses (so-called shell-shock) as constituting the major medico-military problem. Inasmuch as this report, a classic in terse descriptive writing, is today as valuable a contribution to our knowledge of the war neuroses as when written in 1917, I beg leave to quote extensively from it. Especially is it clear in description of what constitutes the war neuroses under the medical slang term of "shell shock," so loosely used by both medical and lay individuals, even today, in every day conversation.

As every nation and race engaged in the war is suffering severely from these disorders, it is apparent that new conditions of warfare are chiefly responsible for their prevalence. None of these new conditions is more terrible than the sustained shell fire with high explosives which has characterized most of the fighting. It is not surprising therefore that the term "shell shock" should have come into general use to designate this group of disorders. The vivid, terse name quickly became popular and now it is applied to practically any nervous symptoms in soldiers that cannot be explained by obvious physical injury. (A term that later, Doctor Salmon, as Colonel Salmon of the American Expeditionary Forces, ordered discarded and not to be used in the official records of the medical service of the war.) The war neuroses have been extensively studied since Doctor Salmon's 1917 report, but the essential psychological facts as delineated in the report, hold the center of the creative study and elaboration of these neuroses today. Namely "the psychological basis" of the war neuroses (like that of the neuroses in civil life) is an elaboration, with endless variations of one central theme; escape from an intolerable situation in real life to one made tolerable by the neurosis. The conditions which may make intolerable the situation in which a soldier finds himself needs stating. Not only fear, which exists at some time in nearly all soldiers and in many is constantly present, but horror, revulsion against the ghastly duties which must be sometimes performed, intense longing for home, particularly in married men, emotional situations resulting from the interplay of personal conflicts and military conditions, all play their part in making an escape of some sort mandatory. Death

provides a means which cannot be sought consciously. Flight or desertion is rendered impossible by ideals of duty, patriotism and honor, by the reactions acquired by training or imposed by discipline and hard reactions. Malingering is a military crime and is not the disposal of those governed by higher ethical conceptions. Nevertheless the conflict between a simple and direct expression in flight of the instinct of self-preservation and such factors demand some sort of a compromise. Wounds solve the problem most happily for many men and the mild exhilarative so often seen among the wounded has a sound psychological basis. Others with a sufficient adaptability find a means of adjustment. The neurosis provides a means of escape so convenient that the real source of wonder is not that it should play such an important part in military life but that so many men should find a satisfactory adjustment without its intervention.

The constitutional neurotic, having most readily at their disposal the mechanism of functional nervous diseases, employ it most frequently. They constitute, therefore, a large proportion of all cases but a very striking fact in the present war is the number of men of apparently normal make-up who develop war neuroses in the face of unprecedented terrible conditions to which they are exposed.

Approached from the psychological viewpoint, the symptoms in the war neuroses lose much of their weird and inexplicable character. Most of them can be summed up in the statement that the soldier loses a function that either is necessary to continued military service or prevents his successful adaptation to war. The symptoms are found in widely separated fields. Disturbances of psychic functions include delirium, confusion, amnesia, hallucinations, terrifying battle dreams, anxiety states. The disturbances of involuntary functions include functional heart disorders, low blood-pressure, vomiting and diarrhea, enuresis, retention or polyuria, dyspnoea, sweating. Disturbances of voluntary functions include paralyses, tics, tremors, gait disturbances, contractures and convulsive movements. Special senses may be affected producing pains and anesthetics, mutism, deafness, hyperacusis, blindness and disorders of speech. It is highly significant that, in this unprecedented prevalence of functional nervous diseases among soldiers, no symptoms unfamiliar to those who see the neuroses in civil life present themselves.

In all these the soldier is afflicted with more or less incapacity without obvious expansion. This is a condition involving great dangers. His condition is degrading and is often rendered more

so by punishment or ridicule to which he is subjected. For this reason, immediately after the onset of the symptoms of the neurosis, the patient passes through a very critical period. Improper management may add to the primary neurological disability which is largely beyond our power of preventing secondary effects which go even further in producing nervous invalidism. Long continued treatment in general hospitals, confusion of the neurosis present with organic nervous diseases, and unintelligent management, all tend to produce the chronic "shell shock" cases which are so familiar in the special hospitals for these disorders. Symptoms which were at one time quite easily removable became fixed and refractory or new ones were constantly produced. The mental attitude—the patient's morale as a soldier and his attitude toward his disorder reaches a very low level, will is seriously impaired and a chronic invalid replaces a temporarily incapacitated soldier.

It was found in a study of the existence of mental disorders of the frank types of psychoses, that the problems were in no wise different from those encountered in ordinary civil life. The principle features of importance being early recognition, early diagnosis, prompt segregation and disposition of the cases with facilities for proper care based on the standards already established by modern American methods which methods by the way are the best in the world.

The surgeon general's office, thus fortified with this study of the grave conditions affecting the war problems of a great army then in mobilization, proceeded to carry out Colonel Salmon's recommendations, realizing the imperative needs of organization to institute means of prevention of the war neuroses first by elimination, by the examining boards then at recruiting stations (the camps) of types destined to become a charge upon the government because of their inadequacies to meet military personnel demands, and second, to secure physicians trained in neuropsychiatry, provide ways and means of training the less experienced, recruit nursing and attendant staffs to handle the cases in the humane and effective manner indicated by modern psychiatry, third, to provide properly planned hospital buildings with approved equipment to give the necessary treatment and care of the patients as they were received in these special hospitals. The evolution and carrying on of this wise plan by the surgeon general's office both in the American Expeditionary Forces and the home forces constitutes one of the greatest triumphs of American psychiatry and served to create and establish psychiatry upon a permanent foundation in the or-

ganized medical service of the U. S. Army. Not only that it has become, and justly so, the example of medical efficiency for other countries and one of England's noted psychiatrists is giving a tribute to this well earned distinction by dedicating a book he is writing to American psychiatry. Psychiatry, thus in its widest sense, has advanced to honorable recognition creating by its dynamic psychology a permanent place for itself, and offering a constructive future so that the psychiatrist, in the words of McCurdy, "will in the future, be an expert in the affairs of our lives, which are now most notoriously left to chance."

The responsibility of the government thus being recognized, the organization perfected and personnel recruited as best could be done, placed the American Army in position to cope with the most formidable problem in medicine, aside from wounds, in modern military service. The results of our two years of war have justified the means employed and, from purely military reasons, to say nothing of popular attitude of medical men and layman, too, have lead to a revision of the conception of the functional nervous disorders, and the appreciation of the psychoses as clinical entities in human experience. The methods of treatment of the war neuroses is a subject for discussion by itself but briefly let me summarize the methods as pursued with their results in the American Expeditionary Forces as stated in an editorial in *Mental Hygiene*, January, 1919:

It was recognized very early by the French and later by the British that the unfavorable types of war neuroses seen in military hospitals at the base and in home territory represented in a very large measure failure to deal effectively with these conditions at their inception. With this fact in mind it was determined at the outset in neuro-psychiatric work in the American Expeditionary Forces to advance the treatment of these conditions as much as possible. The provision of divisional psychiatrists—medical officers with special training in the treatment of mental and nervous disorders who formed part of the sanitary personnel of each tactical division—made it possible for the American Expeditionary Forces to develop a mechanism particularly well suited for this undertaking.

In earlier operations certain administrative difficulties made it possible to deal with war neuroses in individual hospitals only in occasional instances, but the results obtained in those divisions in which it proved feasible to station the neuro-psychiatrist during combat in the triage or most advanced field hospital proved so brilliant that the plan was extended throughout the First Field Army. The fact that in times of stress enormous numbers of wounded passed through the triages of the divisions engaged in a single day necessitated a second line of defense, still within the sphere of army control. This was pro-

vided during the St. Mihiel and Argonne military operations by establishing two army neurological hospitals situated the same distance from the line as evacuation hospitals.

Now that statistics are available it is interesting to note the results of this arrangement. The number of soldiers brought to the triages with a history of concussion or with various functional nervous disorders ranged from three to twelve per cent. of the total casualties. In the military operations mentioned the number was about 7,500. Under favorable conditions as many as 80 per cent. of such cases admitted to the triages were returned to their organizations after an average period of treatment of less than three days. In many divisions various exigencies made the immediate evacuation of cases, favorable or unfavorable, mandatory, but the average proportion returned to duty from divisional hospitals was approximately 65 per cent. Of the remainder nearly all were evacuated to army neurological hospitals, only a very small number, through some mischance or another, going to evacuation hospitals and through them reaching the base. Of the cases received in Neurological Hospitals Nos. 1 and 3, attached to the First Army, approximately twenty out of every thirty-five were returned directly to their organizations and fifteen had to be evacuated for still longer treatment at the base. Nearly all the cases thus sent to the base were received at Base Hospital No. 117, a special hospital for war neuroses. The accompanying chart (appendix No. 3) shows graphically the actual results obtained in all cases of concussion and functional nervous disorders in the First Army treated between September 12 and November 11, 1918.

Lessons of great importance can be drawn from this summary of the results of early treatment of war neuroses and allied conditions. It is now, happily, too late to apply these lessons to further military operations, but it is very desirable not to lose sight of the bearing of this experience upon the outcome in war neuroses generally. It is difficult to realize that conditions so easily managed with the relatively crude facilities available in advanced hospitals have anything in common with the severe and intractable neuroses which used to be seen in large numbers in base hospitals after each period of military activity. It is highly important that everyone in the American Expeditionary Forces and at home should be in possession of these facts and so they are presented in this brief outline in advance of an official report upon the whole subject. These results, so highly creditable to the American Expeditionary Forces, are due first to the readiness with which the chief surgeon of the First Army made it possible to supply the hospitals and the special method of evacuation needed while dealing with other medical and surgical problems of great urgency and magnitude, and secondly, to the zeal, energy and devotion to duty displayed by the neuro-psychiatrists in tactical divisions and in the army hospitals. These officers, without exception, felt that to let a single case become fixed while under their control would be dis-

creditable to the standards that had been set. All worked at times under tremendous stress. In several instances the triages, in which the delicate and complex problems of managing war neuroses were being expertly handled, were under shell fire. Not the least important result of their work was the development among the troops engaged of an entirely different conception as to the results of concussion and nervousness in action from that previously held. In this way they were contributing directly to the morale of the organizations that they served.

Treatment in first aid thus so successful under the nerve-wrecking turbulences of war, should impress us all in civil practice with the necessity of grasping the essential circumstances, fortuitous as they usually are, and making the best of the situation by making immediate analysis of the questions of circumstance and environment which enter into the clinical problem. By so doing we anticipate the possibilities of more profound involvement by blocking the road to chronicity. We shape environment, explain circumstance and fortify personality by contributing to insight and thus make adjustment probable. The French early perceived and recognized these essential and fundamental conditions as absolutely necessary in presenting to the patient the fact that his injuries were neither serious nor permanent. And to reinforce this conception of war neuroses, the French disclosed as an administrative policy that they would not recognize neurosis as a cause for discharge from military service. Further, the treatment of such cases, as the experience in the American Expeditionary Forces has shown, can but be successful at the front, by encouragement, analysis and reassurance, to combat the idea in the mind of the injured soldier that the casualty is of a permanent or disabling character. It is within this field of clinical psychiatry that modern dynamic psychology has proven the justification of merits, by giving interpretations of human behavior, founded upon psycho-biological concepts. Human behavior here being regarded as reactions always seeking the solution of problems in self-preservation—a way out of a dilemma or an opportunity to fulfill a desire—mental states that may be operative as energies or groups of forces with their mechanisms within the territory of the unconscious mentality. The modes of functioning—the current conceptions of the emotions, of the senses, of the perceptions, etc.—all parts of modern analytic psychology, give the point of view and of approach to these essential problems of war neuroses. The importance of this new viewpoint which includes both consciousness and the unconscious in mind, is vital to us as physicians, as is the knowledge of the currents and winds of the sea to the navigator.

And as the knowledge of the modern navigator is so far in advance that the pilot of today can cross the ocean without the wastage of a mile, so the modern science of analytic psychology has superseded the older doctrine which recognized the dynamics of only the conscious mentality. For the vision into the lower strata of the mind is a deeper vision, and makes intelligible much of what was paradoxical before. (Lay.)

Mental hygiene has profited by this knowledge of human behavior—with its unconscious mental activities and with it as in modern psychiatry there is emphasized this fact, that he who would practice within this field must become familiar with the mechanisms of the mind in accordance with the teachings and practices of modern analytic psychology. This new psychology has established the principle that no proper and complete understanding of human behavior can be interpreted—nor the whole mental life understood—which does not give acknowledgment to the unconscious mind.

It is evident therefore that to understand the problems of war neuroses, to grasp the fullness of the perturbations whatever they may be as part of the aftermath of war service, it is incumbent upon us as physicians, to know the clinical pictures, to have knowledge of their etiology and mechanisms and above all, to know what to do with these cases should they show recurrences after the soldiers have been discharged and have returned to their home communities.

The national committee for mental hygiene anticipating the needs of the discharged soldier with reference to his mental problems, whether the condition be a psychosis or a residual or recurrence of a war neurosis and seeking to aid him in his adjustments and care, has established in its office in New York City, a service to handle these problems. Dr. D. A. Thom, late captain in the Medical Corps of the Army, with experience in Base Hospital No. 117, in the American Expeditionary Forces, is the psychiatrist in charge of this service. (Base Hospital No. 117 was especially organized and equipped for the treatment of war neuroses.) Doctor Thom, while captain in the Medical Corps of the American Expeditionary Forces, was ordered to England to study the after care problems in nervous and mental disorders of discharged soldiers, with reference to the adjustment of his disabilities as regards the British system of pensions and incidentally studied the treatment and handling of these cases in their readjustments to civil life.

Doctor Thom will work in affiliation with the United States Public Health Service, designated by law as the medical representative of the war risk insurance bureau in locating, arranging for treatment and after care of these cases. It is well that you, as physicians, be made aware of this service because it is largely through you, that contact may be had with these cases as they return to their homes. The U. S. P. H. S. will provide care for these cases in properly equipped and organized special hospitals and the war risk insurance bureau will bear the expense and arrange for all after care. This is a new feature in psychiatric practice which is to have a wide range for its opportunity to prove its worth to the patients, their families and to you as physicians and which the national committee for mental hygiene is supporting and that is social psychiatric service. An extension of social service in a nation wide program to aid in working out the problems of the individual soldier. This service is now in process of organization. Miss V. Macdonald, formerly executive secretary of the Connecticut State Society for Mental Hygiene and for three years in the Canadian nursing service in France has been chosen to develop this service. This is a most useful advancement in the psychiatric field and has within it wonderful potentials for permanent value in aiding in developing state hospital service.

There is much we can all do in contributing to the welfare of our boys who have served to meet all of the demands of hurried warfare service. With these vicissitudes developed a growing human self-consciousness that warfare at its best is the greatest problem man has to solve. Then in the process of sublimation when man endeavors to reconcile his ideals of civil life to those of warfare, there interpose resistance which may be present in his conscious mind or operate unconsciously and create for him a conflict which sooner or later results in a neurosis unless adjustment is made before the neurosis opens a way out of the dilemma. It is for us to recognize recurrences of neuroses and at once to put the soldier in contact with the agencies designated to aid him that he may receive all of the benefits to which he is entitled. Let us remember that all of these problems are questions in man's adaptation as a machine to meet the demands placed upon him—questions largely answered by adherence to the principles of mental hygiene—of modern psychiatric practice which consider all of the affairs of our lives as individuals as fundamental to human happiness.

APPENDIX 1

Appendix Table 60-A—Combined figures and percentages for causes of rejections by local boards and camp surgeons, and for discharges from the Army of recently inducted men (Series X, Y, Z), (Feb. 10 to Nov. 1, 1918).

1. Figures		
	Total	Mental deficiency      Nervous and mental disorders
United States.....	467,694	24,514      23,728
Iowa .....	14,670	859      570

Appendix Table 60-A—Combined figures and percentages for causes of rejections by local boards and camp surgeons, and for discharges from the Army of recently inducted men (Series X, Y, Z), Feb. 10 to Nov. 1, 1918—Continued

2. Percentages		
	Mental deficiency	Nervous and mental disorders
United States	5.2	5.1
Iowa	5.9	3.9

Appendix Table 60-B—Causes of physical rejections by local boards, compared by States (Series X)

1. Figures		
	Mental deficiency	Nervous and mental disorders
United States.....	255,312	14,417      10,945
Iowa .....	10,772	714      304

2. Percentages		
	Mental deficiency	Nervous and mental disorders
United States	5.6	4.2
Iowa	6.6	2.8

APPENDIX 1-A

Appendix Table 60-C—Causes of physical rejections by camp surgeons, compared by States (Series Y)—continued

1. Figures		
	Mental deficiency	Nervous and mental disorders
Iowa	108	188

2. Percentages		
	Mental deficiency	Nervous and mental disorders
Iowa	3.2	5.6

Appendix Table 60-D—Physical rejections at camp, showing anatomical and pathological defects in detail (Series Y)

	Epilepsy	Neurasthenia	Hysteria	Psychoneurosis
Total .....	1,379	470	313	3,434
Iowa .....	16	7	9	113

Appendix Table 60-E—Mental and nervous disorders as cause for rejection by local boards and camp surgeons and for discharge from the Army

Total Rejections for Stated Causes	Local Board		Camps		Army		Totals		Per cent of Stated Causes	
	Mental Deficiency	Nervous and Mental Disorders	Mental Deficiency	Nervous and Mental Disorders	Mental Deficiency	Nervous and Mental Disorders	Mental Deficiency	Nervous and Mental Disorders	Mental Deficiency	Nervous and Mental Disorders
U. S.....442,275	6,293	7,319	3,804	5,464	14,417	10,945	24,514	23,728	5.54	5.36
Iowa ..... 14,355	108	188	37	78	714	304	859	570	5.98	3.97

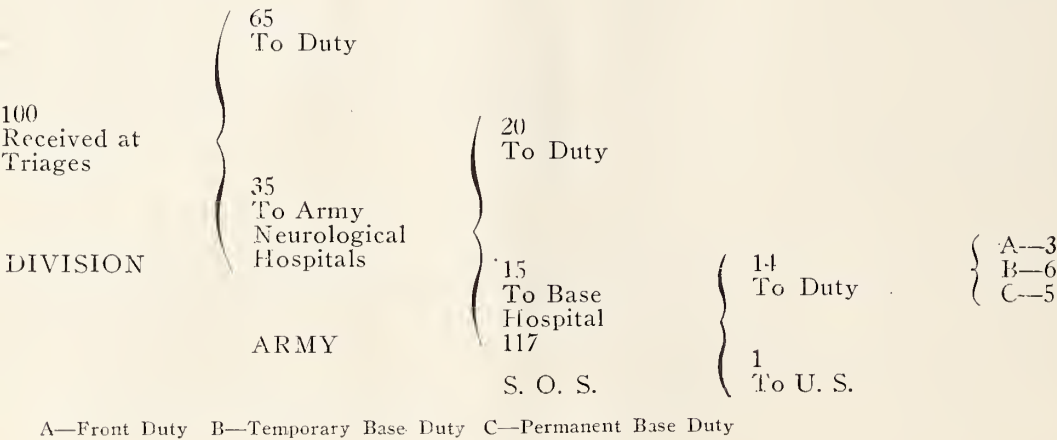
APPENDIX 2

Iowa Neuro-psychiatric statistics, tabulation from the records of the Surgeon General's Office

TOTAL	White 923	Black 24	Grand Total 947
Organic Nervous Diseases and Injuries.....	178	1	179
Epilepsy .....	78	6	84
Psychoneuroses .....	155	4	159
Psychoses .....	146	5	151
Alcoholism .....	20	1	21
Drug Addiction.....	25	4	29
Mental deficiency.....	234	3	237
Constitutional Psychopathic States.....	87	—	87

APPENDIX 3

Outcome of Concussion and Nervous Cases Arising in Battle, September 12 to November 11, 1918 (Percent-ages)



THE IOWA MEDICAL PROFESSION IN THE GREAT WAR

The medical profession of Iowa furnished 835 medical officers for the war in many lines of service, in many camps in the United States, in many overseas camps and in combat service, with credit to the state, with honor to the profession and many with great personal distinction which has been recognized by the War Department and by the Nation. It has been the purpose of this Journal to follow the activities of the Iowa medical officers as far as possible not so much in the way of extoling the individual merits, as in showing how by cooperation of the different medical units a condition of service was obtained that practically eliminated the ordinary infectious diseases that has so often in the past followed armies in the field and rendered so many soldiers unfit. We are also able to point with pride and satisfaction to the skill with which wounded men were evacuated to dressing stations and hospitals notwithstanding the inadequate provision which our unpreparedness compelled us to rely upon. We shall begin our account of Iowa medical officers

in the war with an introductory abstract from the medical history of the 42nd Division (Rainbow) and the medical history of the 168th Regiment (Iowa) which with the 167th Regiment (Alabama) rendered the most distinguished services of the war.

"The purpose of this paper is to relate experiences of the Medical Detachments of the 42nd Division in such a way that the future may profit from the past. And, with this in mind, it seems only fair that we discuss, first, in a brief way, the personnel of these detachments, for the credit that redounds to the medical department of the front line must go to those brave lads whose magnificent courage and intelligence made possible the efficient care of the wounded under most adverse conditions.

"In the service of the state from which these medical detachments came, as a part of that particular infantry, artillery or engineer unit which went to make up the Rainbow Division, there was a peculiar attraction about the medical branch of the service that drew to it, for enlistment, men of the highest type. In fact, it was possible for the commanding officers to take only the cream, as

it were, of the preferred enlistments. This apparently had been done without exception with the result that these medical detachments were made up of men who were peculiarly fitted by temperament and physique for the work that they were later to do.

"In one detachment, of which the writer has intimate knowledge (and there is no reason to suppose that this detachment was other than an average one of the whole Division), the percentage of men who had a grade school education was 100, the graduates of a high school were 90 per cent. of the total and the percentage of those who had had some college training was 80. In addition, almost half of these men had acquired some little medical or surgical training in civil life. In sharp contrast to this type of men, were the poorly chosen replacements that came to the Division on several occasions—an appreciable percentage of whom were illiterate, with little practical experience in life, and some of whom could not speak the English language intelligently. Though the work of these men, in most instances, was creditable, it was obviously hampered.

"The fact that an organization has in it a certain number of college men, a given number of trained men, a proportion of men who are physically strong, does not, perhaps, insure its efficiency, but the fact is submitted that where these qualities, as have been suggested, have been possessed, the result has been most gratifying. The medical detachment man is more often thrown on his own resources than the man of any other branch, when, on his exhibition of courage, intelligence and endurance, depends the safety and life of others, and it is with this fact in mind that the plea is made for the man of these qualities.

"Equipment, too, has played a prominent part in the successful functioning of the medical detachments, as it has with every other branch of the service. The various types of warfare brought about a development of combat equipment. This development includes improvements, modifications, reductions and the addition of many new articles and types. As in other branches of service, problems were met at every turn and, while many of them were to be solved when encountered, yet foresight enabled the medical department to handle many emergencies with credit. Both the English and the French contributed to our medical needs and schooled our officers in their methods, but no perfect equipment or set of rules was provided in advance for the successive campaigns and, after all, experience proved the greatest factor in perfecting and balancing this important item. Transportation, too, effected

equipment in no small degree, especially in the last months of the war."

#### MEDICAL SERVICE OF THE 168TH INFANTRY

1. Baccarat Area—The medical service on a stationary, and more or less quiet front consists mainly of sanitation and prevention of disease, rather than the evacuation of wounded. Consequently, the details of litter-bearing, getting the wounded from the field to the aid station, were not very thoroughly worked out during the first few weeks in this sector. This made very little difference in the service, on account of the nature of the action, which consisted wholly of patrolling and raids, and when the affair was over, the soldier laid down his rifle, took hold of a litter and helped bring his wounded comrade in. And how well they did this is evident by the remarkably swift time of evacuation established in this area.

Major Conkling, the regimental surgeon was away at school when we first entered the trenches, and the sanitary detachment was under command of Capt. Wm. B. Hudson. The 1st Battalion took the trenches in front of Badonviller, with Lieut. Harris and Lieut. Williams as surgeons. The aid station was in Badonviller, and about fifteen hundred yards from the farthest outpost of our troops. The enlisted personnel consisted of a sergeant, a pharmacist, a clerk and ten first aid men. Two of the latter were detailed with each of the two companies in the front line trenches. They had with them litters, splints and a plentiful supply of dressings.

All of the trenches in this area were narrow, and had many sharp angles, so it was apparent from the start that all evacuations must be over the top and without cover. The support battalion was at Pexonne, and the Regimental Infantry was set up there, approximately two kilometers from Badonviller. The reserve battalion infirmary was located at Neuf Maison, and the sanitary personnel moved from one location to the other, keeping with its battalion. The medical equipment was left permanently at each infirmary, and checked by the surgeons at each relief.

The ambulance came to the very door of the battalion aid stations, and when a wound was dressed, the patient was very shortly on his way to the hospital. There was one casualty prior to March 5, 1918, this being a slight wound in the back, suffered by a member of D Company who received a Croix de Guerre for shedding the first American blood in this area. On March 5 we had our first taste of war, withstanding a very severe bombardment which lasted about an hour and a half. The fire was directed almost entirely on the front line trenches, and there the havoc

wrought, appeared to our untried eyes and nerves, to be terrific. There were about forty wounded, most of them severely, as is usually the case in shell fire. In an hour and a half after the shelling ceased, the first of the wounded were in the aid station at Badonviller; they had been dressed in the trenches, and carried a distance of one kilometer over a terrain torn by shells, and crisscrossed with trenches and barbed wire.

Not one of the wounded was brought in without a first aid dressing applied, and all fractures were splinted in the trenches, before putting the patient on a litter. When our front was lengthened on April 1, we took over an ideal dressing station at Village Nigre. This was a huge dug-out, which the French troops had completed after two years of hard work. There were quarters for the men, an infirmary containing eight bunks, and the dressing station proper. This had an entry into a receiving room which held eight litters, then a passage leading to the dressing room. From the dressing room another passageway gave access to a waiting room where an ambulance load of wounded were collected, and then taken directly out by a "sortie" to the ambulance, which came within a few yards of the door. This was only half of the station, the other end being used for walking patients, and not being divided into rooms, could accommodate about two hundred persons. The entire dug-out was lighted by electricity; there were four doors and ten windows, all equipped with gas curtains. Pine trees had been set out all over the dug-out, and a small, but well kept flower garden appeared in front.

The equipment kept in the aid stations here was very extensive; but as yet we had seen no reason for cutting it down. The period from April 1 to the middle of May was mainly devoted to sanitation. This was in charge of Capt. Bunch, who joined the regiment early in April, and from the time of his coming, the smoke of incinerators never ceased. Latrines were dug, and urinals established and in one part of our front when it was impossible to dig on account of water, bucket latrines were put in, and a man from each platoon put in charge of the sanitary work.

In May occurred our epidemic of influenza, the so-called "three day fever," which appeared to be identical with the epidemic of influenza which was then raging in various places on the Continent, and in England. Ninety per cent. of the command suffered from the disease but there were no fatalities. Evacuation to the hospital ran up to 50 and 60 per cent. A sergeant of H Company reported to the infirmary one evening with a temperature of 102 degrees F. When told that

he should go to the hospital, he admitted that he was willing, but had to go back to his post in G. C. 9 and get his equipment. He failed to return promptly, and a runner was sent out to bring him in; then it was discovered that he had gone out on a patrol, possibly thinking that was a good way to cool his fever. It worked out, for the next morning he appeared with a normal temperature, and feeling fine. Many of these men, however, were desperately sick, and did not recover for weeks.

On May 27 we suffered under the most deadly of all offensive measures. A projector gas attack which fell principally on village Nigre and took a fearful toll from the companies stationed there; A, C, and Machine Gun. A projector attack must be experienced to be appreciated. The stupendous noise of bursting containers is so unearthly as to be almost paralyzing and the gas is of such concentration and so all-pervading that the least hesitation means death, or at the very least, incapacitation for a varying period. There is only one defense, but that is absolute: namely, the gas mask, instantly adjusted and left in place until the gas has dispersed. In addition, work should cease, unless absolutely necessary. Many men on the morning of May 27 worked violently at litter bearing, and persisted in it after being ordered to stop, until they, themselves made the ultimate sacrifice.

On May 29th the attack was repeated, but our dearly bought experience had been taken advantage of, and there were but two casualties, and they were unavoidable. The gas used in these two instances was a mixture of phosgene, and chlorene, with the phosgene much in excess. It is a very deadly combination, one full breath of the heavy concentration at the beginning of the attack being sufficient to cause death. The first week in June, Major Conkling was transferred to the divisional medical staff, and Captain Bunch became regimental surgeon, which position he held continuously from that time on.

On June 17 we had our first experience with mustard gas. During a general bombardment of the area, numerous mustard gas shells were thrown into Badonviller. A recommendation was at once made that the portions of the village rendered dangerous by reason of the gas be evacuated temporarily. This was not done, and the following day the ambulances were kept busy evacuating the casualties. The shelling having occurred in the evening, and in conjunction with a bombardment by high explosives, it was impossible to locate all of the gas shell holes, and many men unwitting went to sleep in their quarters and were casualties by morning from the



COLONEL D. S. FAIRCHILD, JR., M.C., U. S. A.  
Chief Surgeon 42nd Division (Rainbow)

slow emanation of gas from unsuspected shell holes close at hand. The following night the Division was relieved and sent to the Champagne.

2. In the Champagne we found ourselves in an active sector. The aid stations were in trenches, with no dug-out nearby, and no cover for either wounded or sanitary personnel. Here for the first time, litter bearers were authorized, and they had one day of training in their work before the storm broke out on July 15. But all stations were accessible to ambulances, and the first load of patients was on its way to the hospital in an hour after the shelling started. Here we learned that the combat equipment for a battalion could only consist of such material as the medical personnel could carry, as the battalion moved from place to place. Here, also, three men of the sanitary detachment with the third battalion were recommended for the D. S. C. by the company commanders of that battalion.

In Lorraine, the deepest dug-out was none too safe. In Champagne, even a trench two feet deep, such as the second battalion infirmary occupied, was a God-send. The evacuations were carried on regularly, and with no hold up, from all three aid stations, as long as ambulances were available. After eight o'clock on the morning of the 15th, we had more or less trouble getting the patients to the rear. But they were finally cleared up by evening of that day. And although we remained in that position for several more days, there were no casualties.

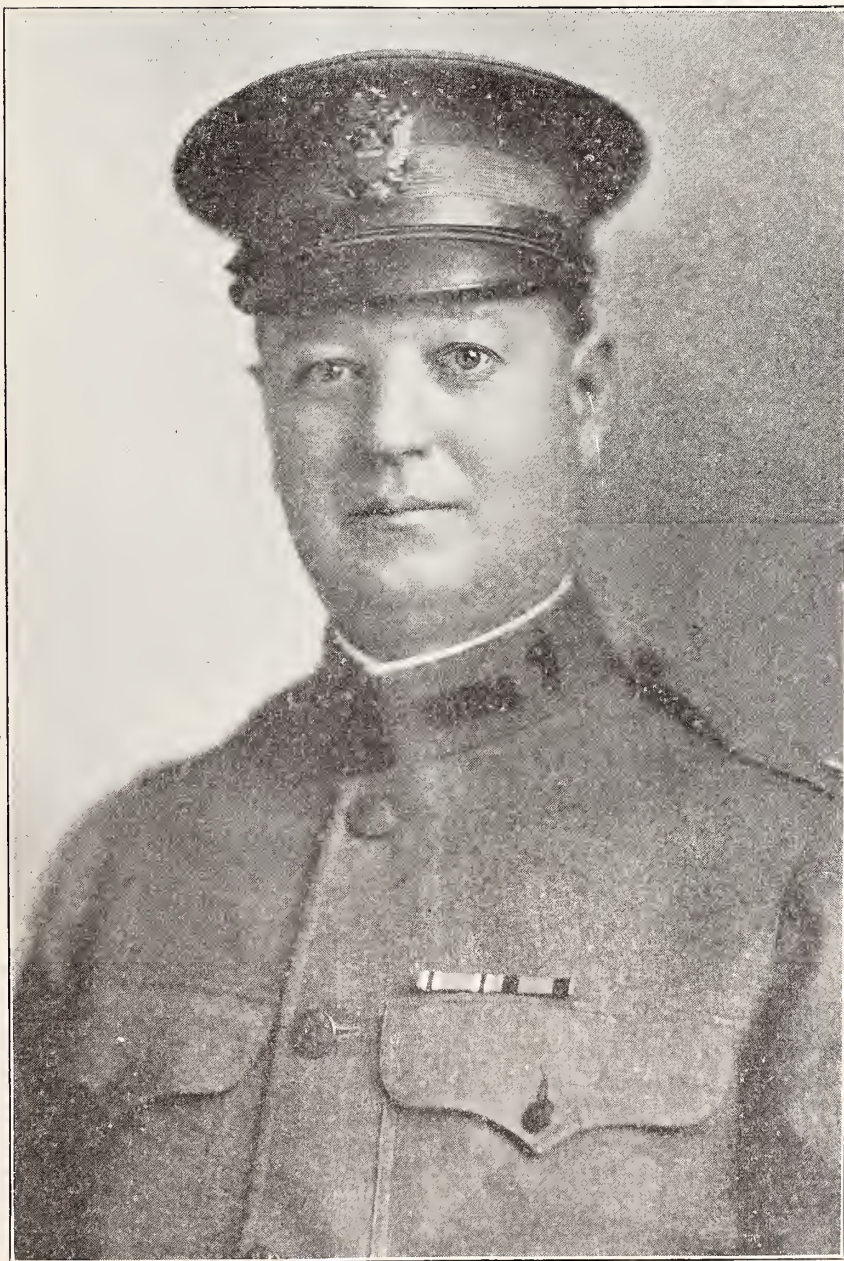
3. At the beginning of the counter offensive in the Chateau Thierry region we were at once relieved and sent to that area. Here we found a different problem. Open warfare, in a wooded region without roads, and most vital of all, no maps. Prompt cooperation from the Regimental Commander insured an extra detail of litter bearers, and enabled us to get the wounded to the aid stations in very good time. But as the heaviest casualties occurred in the neighborhood of Red Cross Farm, and just at dark, this field was not cleared until the following morning. No horse ambulances were available, but an escort wagon with two mules did wonderful work in this region. It was more than a kilometer from the front line to the nearest aid station where work could be carried on at night. And as we had had two days of rain, the paths in the woods were little canals of mud. The litter bearers here had a heart breaking task, and there was not one who did not deserve a decoration. The night following the action at Red Cross Farm, the regiment moved forward through the woods, several kilometers, taking up a position to attack across the Ourcq river at dawn.

The battalion aid stations were moved with the troops, the men carrying all the equipment, and being established in position when the attack began the next morning. Soon the wounded were pouring in, but no ambulances were there to take them to the rear. We had the unfortunate experience of seeing hundreds of patients lying in our several stations, some for more than eight hours, some even twelve, before they were moved. Three S. S. U. ambulances attached to our regiment made trip after trip that day, but could not make an impression on the ever increasing number of casualties. Three ammunition trucks took fifty gassed and wounded patients from Lieut. Harris stationed at La Cense Farm, and notably relieved the congestion there. And finally a train of ambulances was secured from the Division on our right, and we evacuated all of our seriously wounded shortly after midnight. On this front we ran two aid stations. One, near the firing line, handled litter cases, and two squads of ambulance litter bearers were stationed there, as it was not accessible to motor vehicles. The other station served as a gathering point for all wounded, and being in plain sight of the entire field, drew walking wounded from all directions.

On the afternoon of the second day on the Ourcq, Lieut. Williams and Lieut. Green were wounded in their station at La Monte farm. Both of our stations here were under direct observation, as well as the path connecting them. Consequently the casualties among litter bearers were very high. And as the line advanced through Sergy and on to the hills beyond, it became increasingly difficult to get the wounded back. A good, but very dangerous road ran from Sergy, to the rear, right past our rear station, and six Ford trucks from the 149th Machine Gun Battalion took up the task of evacuating the village. Trip after trip was made, and each was a race with death; vicious Whiz-bangs and heavier Howitzers marking the trail of each little car with curling bursts of the dense black smoke of high explosive. Most of the patients were covered with dust and dirt from the shells that hurried the truck on its way. And each driver profanely ridiculed the attempts of the enemy gunners to make the way impassible.

After replacements were received, a new detail of litter bearers was secured, and these were given several days of instruction in applying the first aid packet, and handling litters and wounded men.

4. At St. Mihiel we were better able to plan our work, as the operation was from an old prepared position. The aid station of the attacking battalion, was just in front of the jump off in an



LIEUT-COLONEL W. S. CONKLING  
Surgeon 168th Regiment, Director Field Hospital,  
Director Sanitary Train

abandoned strong point. The station of the support was about three hundred yards in the rear of this, and the reserve station was on the road, about six hundred yards in the rear of the latter, or nine hundred yards from the advanced station. Motor ambulance could not traverse this last distance. It was necessary to bring seriously wounded to the road by stretcher bearers, but slightly wounded, unable to walk, were transported by horse ambulance. As our rear station was the loading point of the motor ambulances, it was necessary to maintain it until the field was cleared. The support station however, moved forward as soon as the enemy's line was broken, and followed the advancing line closely. Practically all casualties occurred in the first two hours of the attack, so the wounded were all evacuated from our original positions. This was very fortunate as it would have been almost impossible to evacuate across the area comprised in the old battle lines. The roads across the old "No Mans Land" were hastily reconstructed, and sustained an unceasing stream of traffic for forty-eight hours after the lines moved forward, but this traffic was of necessity all moving forward, and vehicles going towards the rear had little chance of getting through.

The army objective was reached at ten o'clock in the morning of the second day, and at eleven o'clock we had one motor and one horse ambulance at the aid station just behind the front line. The advance station was located in Louisville farm. The road leading to it, as well as the farm itself, was under direct observation from the enemy lines, but was just out of machine gun range. The support and reserve stations were with their respective battalions, and three kilometers behind the outpost line. We remained two weeks in this sector, getting latrines, urinals and refuse pits established, and were transferred to the Argonne region. The entire Division camped in the woods just before Montfaucon for several days. This camp was behind the German lines as they were prior to September 26th, and the area had been under shell fire for the entire period of the war. A more devastated region would be hard to imagine. Branchless trunks of trees represented what had been once a forest, and each soldier had for his home, an individual shell hole. Here the first rumors of peace began to come, and over-enthusiastic dough boys were shouting in concert every few minutes, day and night when particularly pleasing ideas occurred to them.

5. Shortly orders to move came, and we moved to the left of Montfaucon, on a road continually jammed with ration and ammunition

trucks, ambulances, artillery and practically everything that goes on wheels. The march was particularly exasperating because the road was being intermittently shelled with H. E. and shrapnel. Under such conditions, most anyone has an almost uncontrollable desire to move right along and perhaps establish a new country record over the said bit of highway. Finally some eight inch, tractor drawn rifles, a couple of ration trucks and three caissons met the head of our column, and almost immediately afterwards, three shrapnel bursts right in the road, and settled all questions of right of way, and traffic speeded up considerably. The wounded were taken into a barn nearby and dressed. Ambulances appeared at day break. The regiment rested that day, and relieved the 28th Infantry that night. The following day was spent in reconnoitering and brought a further change of position to the right before Hill 288 where the action started on October 14th.

It was four kilometers from this position to a road; and this four kilometers was through a valley, ankle deep in mud. All communications from the Brigade sector to the rear was by this valley, and it was under nearly constant fire. Two squads of ambulance litter bearers were with the advanced aid station. They carried patients to the support aid station, about one and a half kilometers towards the rear. Here the horse ambulances could operate, and did operate, but were not sufficient to evacuate all the wounded, many of whom were borne back by the stretcher bearers the entire four kilometers.

The aid station here was in a "fox hole" for two days. Then an abandoned hut was found, which when covered with a tarpaulin, gave good protection from the rain, and made it possible to work at night. The advance on hill 288 began about seven in the morning. At noon the leading elements had passed over the crest, and the medical personnel moved to the top of the hill, with battalion headquarters. This position soon came in for a heavy shelling by enemy howitzer, and Sergeant Burke, Pharmacist Bongers and Clerk Aschan of the sanitary detachment were all wounded by fragments from one shell. Two days later the Cote de Chattillon was taken, and ambulances could then come at night to within a few yards of the aid stations. The work in this area was probably the most severe test the medical department had during the war. The regiment was soon relieved here, and got a week's rest before entering the final campaign. The initial attack on the new line was on November 1 and on November 2 we marched out of our billets and followed the advancing 77th and 78th Divisions.

On November 5 we took over a sector just north of St. Piermont and at midnight of the 6th our troops were overlooking the Meuse river just above Sedan. During this advance no aid stations were set up, the medical personnel moving right along at the rear of the battalion, and carrying all equipment. There were three casualties during the 5th and 6th; two from shell fire and one from a machine gun bullet. The men suffered a great deal from exposure and lack of food, and consequently many sick were evacuated. We were relieved from this front on November 9th and had moved back to Briquenay when the armistice was signed.

### SOME OBSERVATIONS ON THE PNEUMONIA SITUATION IN CAMP PIKE, ARKANSAS\*

C. H. HERRMANN, JR., B.S., M.D., AMANA

*Introduction*—At the request of the secretary I have prepared a short paper based on my experiences in the diagnosis and treatment of pneumonia cases in Camp Pike, Arkansas, during the recent epidemic of influenza. Realizing that the reports of the studies of pneumonia commissions in the various cantonments in the United States have been published in the J. A. M. A. at different times, I shall limit the scope of this paper to some personal observations which may be of interest to the general practitioner. However, I shall first give a hasty survey of the "flu" epidemic in camp.

Beginning about September 1, 1918, up to and including September 22, there was a steady increase in the cases admitted to the base hospital with the diagnosis of acute bronchitis. This number on September 22 was 89 but on the next day jumped to 214 admissions. It was then that the epidemic of influenza was officially recognized, and the daily admissions to the hospital steadily increased until the number admitted reached its maximum of 1214 cases on October 2. The infection had started in the extreme southwestern corner of the camp and in four days the disease had spread throughout the entire camp. During the two months from September 1 to October 31 there was a total of 12,393 influenza cases and 1499 cases of pneumonia with a total of 468 deaths. There was a striking difference in the susceptibility to the infection between the recent arrivals in camp and those who had been there for a month or longer. Of the former 30.6 per cent. developed "flu" and of the latter only 15.5

per cent. In the pneumonia cases this difference was even more striking, 67.5 per cent. of all the pneumonia patients being new men. In general, the wave of pneumonia cases followed approximately one week after that of influenza. It goes without saying that with such overwhelming numbers of new patients the medical department of the hospital was strained to the utmost.

*Pneumonia. 1. General Observations*—The influenza patients were admitted to "flu" wards and when any one developed pneumonia, which was diagnosed only on finding signs of consolidation in the lungs by careful physical examination, he was transferred to a pneumonia ward. The patient's throat and sputum had been cultured on admission to the hospital and if hemolytic streptococcus was present he was taken to a "strep" pneumonia ward, if no hemolytic streptococcus was found, he went to a "clean" pneumonia ward. The rapid course of some of the fatal cases is especially noteworthy. I distinctly remember one case of a soldier who was taken suddenly and violently ill, was admitted to the hospital as an appendicitis suspect, but after admission was classed as a pneumonia suspect although no definite signs were found in the lungs. On the second day signs of consolidation were found, on the third day empyema was diagnosed and confirmed by aspirating from the pleural cavity several hundred c.c. of pus. By the morning of the fourth day he was dead. Necropsy revealed a broncho-pneumonia with a purulent bronchitis, a purulent pericarditis, a purulent pleurisy, and a purulent general peritonitis. There was pus from the neck to the pelvis. And there were many more who ran such a rapid course.

*2. Pathology*—Autopsy usually confirmed the clinical diagnosis in the fatal cases although the pathologist in the little mortuary sometimes had a surprise for the clinician. Without going into a description of the pathological conditions observed, I wish to mention some unusual conditions seen. In cases of bronchopneumonia associated with a purulent bronchitis the uninvolved lung tissue would not collapse upon opening the thorax, and did not collapse even on section. In the larger bronchi a thick, heavy, tenacious pus was found and the same material could be squeezed out of the smallest bronchioles. That this pus effectually plugged the air passages was seen by a dilatation or bronchiectatic condition of the bronchioles, especially in those of the dependent portions of the lungs. Undoubtedly this lack of aeration played a big factor in the extreme cyanosis sometimes present in these cases.

The progressive type of bronchopneumonia was illustrated by patches of consolidation in all the

\*Read before the Iowa County Medical Society at North English, Iowa, June 16, 1919.

different stages, from congestion to red and gray hepatization, and even abscess formation with abscess cavities.

The pleural fluid often was bloody, sometimes almost pure blood, apparently hemolyzed, and not coagulated.

Hemorrhages into the lung tissue were also present.

Occasionally a suppuration of the interstitial connective tissue was seen, a cellulitis of the lung, with the individual lobules plainly outlined by a band of yellow pus.

Localized empyemas were not infrequently connected with a small abscess cavity of the lung just underneath the visceral pleura.

3. *Symptoms*—The symptoms of the pneumonias in the army camps were not different from those seen in civil life, and since we are all familiar with them, I shall not attempt to discuss them here.

4. *Diagnosis*—The diagnosis of a well marked case of pneumonia is usually not difficult, the combination of the history, symptoms, and physical findings being quite sufficient. To my mind the most valuable single sign of consolidation is a transmission of the whispered voice sounds in areas where normally it is absent, and an increased transmission "and an increased transmission" where normally it is present, as for instance at the right apex and at the lower angles of the scapulæ.

Perhaps the most difficult cases to diagnose are those with a central involvement of the basal part of the lung and the diaphragmatic pleura, giving referred signs of abdominal trouble, especially of appendicitis. In these cases the history of a chill, the presence of a cough, the rapid respiration rate, the high temperature, and a high leucocytosis are in favor of pneumonia, even though there should be pain, tenderness, and rigidity over the appendiceal region. Vomiting may occur in both conditions.

5. *Treatment*—I regret to have nothing new to add to the treatment of pneumonia. A specific serum has been developed and found useful only in an infection with the Type I pneumococcus. The importance of this serum therapy is minimized by the fact that this type of infection is the least fatal of all and that most patients suffering from Type I infection will get well with the ordinary methods of treatment.

The following is an outline of the routine treatment as prescribed "by order of" the chief of the medical service:

I. Absolute rest in bed.

II. Force fluids, up to 3000 c.c. in twenty-four hours.

III. Digitalis from the moment the diagnosis is made.

IV. Symptomatic treatment:

(A) Cough—Cough mixture, codeine, heroine, etc.

(B) Pain—Ice bag, hot water bottle, opiates.

(C) Cardiac Failure—Force digitalis, one drachm of the tincture t. i. d., or hypodermic preparations, camphorated oil, etc., 250 c.c. of a 25 per cent. glucose solution seemed to be of some value, when given intravenously.

(D) Edema of Lungs—Atropine gr. 1/100 hypodermically, adrenalin (1/1000) M Xq. 15 min. for six doses.

(E) Tympanites—Turpentine stupes, turpentine enemata, oxgall enemata, assafoetida enemata, rectal tube.

(F) Cathartics as needed.

V. Isolation and Air Space—The importance of the isolation of the patients and plenty of air space was never better illustrated than during the past epidemic. During the first four days of October, 1918, there developed 510 new cases of pneumonia. The highest number of new cases in one day was 142 on the second of October. The pneumonia wards were crowded, new wards were hurriedly opened up, the personnel consisting of a medical officer, nurses and corps men, was inadequate to properly handle the enormous inflow of new patients, and the patients themselves were desperately sick. To avoid overcrowding was impossible, the beds had to be placed close together, and the demand for new beds and supplies was great. The wards, the porches, and even the corridors and cross corridors were filled with sick men, coughing, spitting, vomiting, calling for bed pans and urinals, for medicine and for water. Many were delirious, got out of bed, some even reaching out doors. Doctors, nurses, and attendants were doing the best they could. The mortality was high. Patients died in spite of anything and everything that could be done for them.

To create order out of this chaos naturally required some time. As quickly as possible, wires were strung across the wards and porches and sheets were hung up between the beds while the beds themselves were alternated head and foot to more effectively limit the distance the spray was thrown when the patients coughed. Drinking cups, dishes, and sputum cups were sterilized every time they had been used. As far as possible the attendants treated the individual patients as though they were infected surgical cases. In this way cross infection was eliminated and with it there was a marked drop in the mortality rate of

the ward. In about a week's time the number of patients in a ward was also reduced to forty-five, that is, two rows of fifteen beds each inside the ward and one row of fifteen beds on the porch. During the initial rush, sixty to eighty patients and more had to be crowded into one ward. With the restoration of the normal order, the mortality rate also returned to a normal level.

It has been proved repeatedly that pneumonia patients infected with one particular type of pneumococcus can be reinfected with another type of the organism from another patient. For instance, infection with the pneumococcus Type II occurred in Private P. recovering from pneumonia caused by pneumococcus Type IV. This infection with Type II was acquired from a patient, Private S., occupying an adjacent bed. If a patient was infected with the hemolytic streptococcus, he quickly infected those around him unless proper precautions were taken. Therefore it is of the greatest importance in private practice to keep pneumonia patients isolated.

So, after all, the proper treatment of pneumonia remains absolute rest in bed, plenty of air space and fresh air, isolation of the patient, symptomatic treatment, and conservation of the patient's strength by giving him proper food and securing for him sleep and pleasant surroundings to avoid worry.

*Complications of Pneumonia*—The most important and most common complication of pneumonia is pleural effusion, usually purulent, but sometimes sterile.

1. *Sterile Pleural Effusion*—Among the pneumonia cases under my care there were two cases of sterile pleural effusions, one complicating a bronchopneumonia, the other complicating an extensive lobar type. In the latter case all three lobes on the right side and the left lower lobe were involved. Both made an uneventful recovery after the effusion had been withdrawn, although in the severe case there was considerable pleural friction and pain which persisted for weeks after convalescence.

2. *Purulent Pleural Effusion, Empyema*—I do not know the percentage of pneumonia cases that developed empyema, but it was not infrequent and complicated both the lobar and bronchopneumonia types. An unusual feature was the extremely rapid accumulation of fluid early in the acute stage of the disease, as early as the third day. It was not uncommon that the whole pleural cavity would be filled up in a few hours. Over night for instance, embarrassing the respiration and circulation to an extreme degree and demanding immediate aspiration. In all these rapid cases the pus was very thin at first, green-

ish or brownish in color, and often blood-stained. Some patients had to be aspirated twice a day, in others the fluid would reform comparatively slowly delaying a second aspiration for several days. Constant vigilance was required to detect the fluid early. Of course, there were also many instances in which the fluid appeared after the temperature had been normal for some time, or where the temperature would not come down as expected and developed into the septic type, with morning remissions and rises in the afternoon.

*Diagnosis*—The standard physical signs of fluid in the pleural cavity are so well known to us that it is unnecessary to rehearse them again. However, to make a definite diagnosis is not always easy. A rapid and complete consolidation may give rise to confusion by presenting practically all the physical signs of fluid, such as immobility of the afflicted side of the chest wall, loss of tactile fremitus, a very dull note on percussion, and practically absence of voice and breath sounds. On the other hand, an extensive effusion may give signs of consolidation, such as typical tubular breathing, and very plain and intense transmission of the whispered and spoken voice. To make a definite diagnosis here is difficult. However, in the case of the effusion there will be some displacement of the heart towards the sound side, and the x-ray will throw a denser shadow than in the case of the consolidation. Of course, the aspirating needle is of great value, but even the needle is not always reliable. The pus may be too thick to be sucked through the needle, or the puncture may have passed through a massive layer of fibrin attached to the chest wall which will block even the largest size aspirating needle in use. And that an exploratory puncture is not without danger, I shall bring out a little later. In my experience, however, the atypical signs described gave place after a few days of watchful waiting to the typical signs of consolidation and of fluid respectively. I might add that in these doubtful cases the percussion note is a little more flat, or rather the sense of resistance under the percussing finger is a little greater over the fluid than over the consolidated lung.

*Treatment*—In the treatment of empyema great progress has been made during the great war by the development of the closed method and the use of Dakin's solution. Although several army surgeons independently worked out a form of this treatment, it was Capt. Arvine E. Mazingo of the medical corps of the U. S. Army who devised the best and most successful method at the Walter Reed General Hospital, Washington, D. C. His preliminary report was published in the J. A. M. A., December 21, 1918. Capt. Mazingo

was transferred to Camp Pike, Ark., to take charge of the empyema service and there I became personally acquainted with him and his work. Although no definite statistics have been worked out it is certain that the closed method of treatment has reduced the formerly high mortality rate of empyema cases to a very low figure. Briefly, Mozingo's treatment consists of introducing a trocar and cannula between the ribs, inserting a soft rubber tube through the trocar taking care to avoid air from entering into the pleural cavity, and maintaining a negative pressure in the chest cavity. A small gauze dressing is placed immediately around the tube and then covered with an adhesive dressing about four inches square. This dressing will not become soiled and often stays in place until the tube is permanently removed. The pus is aspirated by means of a one-half ounce bulb urethral syringe and then the cavity is irrigated with Dakin's solution every two to three hours for several days until the pyogenic membrane has been dissolved and the cavity made fairly sterile. Then a 2 per cent. solution of formalin in glycerine is employed to complete sterilization of the cavity. Finally the tube is removed and the skin closed by means of a skin clip or an adhesive strip. The resulting scar is very small and non-adherent. The tube has been permanently removed as early as the eighth day. For a detailed description of this method I refer you to the J. A. M. A., December 21, 1918.

That this closed method is practicable in the home and in country practice is evident. Permit me to quote from the author's paper:

While in treating empyema cases, roentgen ray and bacteriologic facilities are to be preferred, they are not absolutely essential when the closed method is used. After treatment from one to six days with Dakin's solution, followed by a few day's treatment with the formaldehyd solution, if the secretion has become a clear, sero-sanguinous fluid, one can feel fairly assured that the cavity is surgically sterile, even though no smears or cultures are made.

3. *Other Complications*—Among the other complications of pneumonia observed were those of the

(A) Heart, such as myocarditis, pericarditis, and endocarditis. A systolic murmur is often heard during the acute febrile stage disappearing again after the fever has subsided.

(B) Subcutaneous emphysema in the anterior triangle of the neck.

(C) Pneumothorax, the result of a ruptured lung abscess into the pleural cavity, or of an exploratory puncture with injury to the lung. I have seen a case of complete unilateral pneumo-

thorax in a soldier who had been prematurely explored before transfer to a pneumonia ward.

(D) Rupture of one of the rectus abdominis muscles, the result of a severe coughing spell, occurred in a few rare instances with the formation of a hematoma. This either became absorbed or infected requiring incision and drainage.

(E) Meningismus was not very rare, and pneumococcic meningitis occurred occasionally.

(F) A few cases of active tuberculosis occurred subsequent to an attack of pneumonia. This was probably a lighting up of an old focus in the lungs.

(G) Acute otitis media followed by a mastoiditis occurred in a number of cases. The necessary operation for the mastoid involvement was performed under local anesthesia.

(H) An unresolved pneumonia, or a chronic pneumonia sometimes persisted for months after the acute disease.

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#### ADDRESS OF PRESIDENT OF IOWA COUNTY MEDICAL SOCIETY\*

C. F. NOE, M.D.

We meet today for the first time after the close of the most momentuous period in the history of the world. In the short space of a year or so there have come about changes so far reaching and so revolutionary as to make it impossible even to estimate the ultimate outcome. The great world war has had its influence on all aspects and phases of human existence. Political, social, economical, industrial, scientific, and all other activities have been touched and influenced, and not the least our own profession. We are gratified to say that the medical profession of all the countries involved has come through the ordeal with great credit and that of our own country has been second to none; if reports are true it has been better than any other.

After all, the medical department, with its subdivisions of sanitation, internal medicine, surgery, preventive medicine, the various specialties, and finally reconstruction, is one of the most important factors in the successful conduct of war. The medical department was the one department which was prepared when the war came and it performed its functions with less delay, greater efficiency and greater harmony than perhaps any other department and no congressional investigation was ever found necessary to probe its conduct.

Many and varied were the problems which pre-

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\*Read before the Iowa County Medical Society at North English, Iowa, June 16, 1919.

sented themselves to the medical men of the country at the beginning of the war. The physical examination of the selected men was a stupendous task which was, thanks to efficient organization, not only mastered, but was made the source of much valuable knowledge regarding the condition of our manhood of that age period. The problems in the army itself were most varied. One of the greatest was perhaps the handling of venereal disease. Right in the beginning our medical corps took an advanced stand handling the matter without gloves, educating the men and supplementing this with the most up-to-date prophylaxis and treatment, with the result that today the United States stands before the world with the cleanest army which has ever been assembled by any country or by any power.

Right in the midst of our greatest effort came the deadly scourge which did more towards the depopulation of the world than all the battles of the war, the flu. Like lightning out of the clear sky it struck our camps, disappearing almost as quickly, and leaving in its trail misery and death. The perfect organization of our medical corps made possible the most painstaking study of the epidemic resulting in the discovery of many facts pertaining to the disease which probably could not have been worked out in civil life. This is particularly true in regard to the various complications which occurred, such as pneumonia, empyema, meningitis, pericarditis and countless other infections. Another field of great progress has been that of vaccines and serums. Hundreds of thousands of lives were saved by the use of these remedies and prophylactic agents. Typhoid has been stamped out, tetanus robbed of its terrors and very promising advances made in the treatment and prevention of pneumonia. The progress in surgery will only become known after the sifting over of the enormous amount of accumulated material and the selection of all that is best. Again entirely new problems had to be solved, arising from methods of warfare which were peculiar, and we hope, will always remain peculiar, to this war. The treatment of gas injuries had to be worked out, shock due to extremely high explosives had to be taken care of, medical and surgical conditions due to warfare in the air and under the sea had to be studied and remedied.

So, while the period of history just passed has been revolutionary in its influence upon the entire world, it has been markedly so upon our profession, and while the lessons of the war have been dearly bought with the lifeblood of our country's best manhood we may rest assured that the benefits which will come from the experience will save enough lives in the future to make good the

loss we have suffered.

I will not take up any more time in view of the fact that we have on our program a number of very interesting papers. We also have with us most of the men who have honored our county society through their service to our country and we extend to them a most hearty welcome back home and we will listen with great interest to what they will tell us of their experiences in the service.

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### THE EAR AND AVIATION

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Lieut. Col. Eugene R. Lewis, M.C., Dubuque, Iowa, says it is apparent that in flying motion takes on a much greater importance as regards potential safety or disaster for the individual than it possesses on the ground, and that motion-perception is commensurately of greater importance in the air than on the ground.

Regardless of the actual percentages which would express the shares of vision, deep sensibility, and vestibular and tactile sense in the total of motion sensing on the ground, it is established that three of these four are reduced and is therefore of relatively increased importance. It follows that it is of prime importance to determine that men to be trained as fliers possess normal vestibular apparatus. So important is it for the flier to possess normal vestibular acuity of motion-perception that no man should be permitted to begin training as a pilot who has not definitely shown normal reaction to vestibular tests.

This, however, does not end the otologist's responsibility in aviation. It must be borne in mind that physical deteriorations of the vestibular apparatus are always possibilities. Cases have been encountered in which men have gone into the service possessed of normal vestibular sense, and subsequently developed marked impairment of their vestibular function, seriously reducing their flying ability. Re-examination of all fliers at intervals is just as necessary to proper maintenance of the flying service as is the first examination of applicants for admission to this service.

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### VOLUNTARY ACCELERATION OF THE HEART BEAT

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Dr. Howard F. West and Dr. William E. Savage of Boston record certain observations on a healthy young man who was able by somewhat difficult and exhausting concentration on accelerating heart activities to almost immediately increase the number of heart beats and in an hour's time bring an increase of from 69 to 96 beats a minute. Some experiments were made on this man as to the effects of atropin. Pressure on the vagus would reduce the pulse from 72 to 48 beats per minute. This is the fourteenth case of this kind recorded.—Archives Internal Medicine, December, 1918.

# The Journal of the Iowa State Medical Society

D. S. FAIRCHILD, Editor.....Clinton, Iowa

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## THE PRESENT STATUS OF LEGAL MEDICAL DEFENSE IN IOWA

The Journal of the State Society for July 15 contains the proceedings of the House of Delegates of the State Society and an editorial statement of the present status of malpractice defense in Iowa.

Some years ago insurance companies were organized for the purpose of protecting doctors against malpractice. Some were organized for purely legal defense. Old line insurance companies adopted a malpractice feature including indemnity for judgments. The attorney general of Iowa decided that insurance which contemplated indemnifying the doctor for judgments secured, was contrary to public policy. A succeeding attorney general decided that any commercial insurance against malpractice was unlawful. Under the ruling of the attorney general all licenses were refused to malpractice insurance companies. During the time that insurance companies were carrying malpractice defense state medical societies organized medical defense features which have been continued. In no other state except Iowa was commercial malpractice insurance forbidden.

With this interpretation of the law in Iowa, physicians were entirely dependent on the efforts of the committee in defending suits against malpractice. This mutual arrangement was not regarded as contrary to the spirit of the Iowa law. At the last session of the legislature a bill was in-

troduced and fostered, by certain men interested in insurance, which made it lawful for any insurance company under certain conditions to organize a form of malpractice defense, which might include the payment of judgment rendered by the court or for settlement made by the parties interested.

This same legislation prohibited the committee of the State Society to pay any judgments or court expenses unless the committee was organized as an insurance company. After mature consideration, it was decided that the maintenance of an insurance organization would involve certain expenses which would be contrary to the policy and traditions of the State Society and it was resolved that the State Society would continue the defense in the same manner as during the last eleven years of its existence.

Under the new law commercial insurance companies are entering the field for the purpose of soliciting malpractice insurance among doctors. The medico-legal committee of the State Society feel that with the experience of eleven years that the State Society can defend its members more successfully than a commercial insurance company which will be obliged to contend with prejudices growing out of the fact that the doctor himself will not have to pay the judgment, but that the judgment will be paid by an insurance company. There has been in the past a certain feeling that when a controversy grew up between the patient and his doctor over the treatment of a case, the doctor would be tried by the jury as a private individual and might gain some sympathy with them. But when the controversy grew up between the patient and his doctor and a suit followed and a judgment rendered, and that judgment be paid by a corporation which had been hired by the doctor to pay the judgment, the effect on the jury might be different.

We are therefor of the opinion that the best interests of the profession will be served by continuing the old form of medical defense which involves chiefly the good name of the doctor, and by the carrying of commercial insurance by those who desire to particularly protect themselves against financial loss.

For the result of the committee's work, refer to the pages 241 and 242, July number, of the Journal of the Iowa State Medical Society. It will be seen that one hundred and thirty-eight malpractice cases have been disposed of with four judgments against members and the aggregate amount of judgments \$5,275. The whole amount of claims made against doctors in eleven years was \$1,669,398.

### LABORATORY TECHNICIANS

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The problem of securing laboratory technicians to meet the absolute necessities of the busy practitioner is being seriously considered. There is at present no adequate source of supply although a number of institutions are training a small number of young women for this work. We have advocated graduate nurses, high school graduates, to take a course in a well organized laboratory. There are nurses of superior mental endowments and educational qualifications who would be better fitted for laboratory work than for house to house nursing that would find congenial and profitable employment as laboratory technicians for small hospitals or groups of physicians. We have had some profitable experience with young women not desiring to become practicing physicians who completed the first two years of a medical course specializing in laboratory courses and then taking up the work in hospitals or as technical assistants for physicians. In a recent number of the *Journal of Laboratory and Clinical Medicine*, Professor John A. Kolmer of Philadelphia has taken up the matter in the same way. Dr. Kolmer has had considerable experience in training laboratory technicians and in part writes as follows:

Candidates for instruction must be high school graduates or possess the equivalent in preliminary education; a knowledge of chemistry and biology has been found helpful but not essential. Our most successful students have been those who have entered into this work whole-heartedly and with the purpose of making it their profession; a few have subsequently studied medicine. By reason of their patience, attention to details, cleanly habits and the ability to concentrate, most young women in our experience have proved apt pupils and well fitted for work as laboratory technicians. These qualities are frequently lacking in men, whereas they can be developed to a high degree on our students and ensure the conduct of laboratory tests and methods in an orderly, painstaking, accurate and thorough manner. It is the common experience of most pathologists that a well-trained woman technician is capable of doing high-grade work equal to and sometimes superior to that of the physicians themselves and particularly of the interne of average ability and training.

In the Polyclinic laboratories the first course of instruction is in laboratory technic which includes systematic training in the preparation of the different kinds of culture media; the different methods of fixing, hardening, embedding, cutting and staining tissues; the preparation of stains; sterilization of glassware and similar work of a fundamental nature. At the completion of the course the student is given a thorough practical and written examination and, if these are passed successfully, the student is eligible

for the course in clinical pathology which includes instruction in the chemical and microscopical examination of urine, blood, gastric contents, feces and clinical bacteriology, the latter including the Widal reaction examination of cerebrospinal fluid, sputum, cultures and smears. At the completion of this course a thorough examination is given and it is my custom to advise students to accept positions in order to gain wider experience in the methods and tests which they have been taught, and then to return to the laboratories for instruction in complement-fixation technic with particular reference to the Wassermann and gonococcus complement fixation tests. Not infrequently the students elect to continue their instruction until the course in the Wassermann reaction has been covered. I fully realize the great importance of thorough instruction and particularly practical experience of the technician in the conduct of the Wassermann reaction and my experience during the past three years, covering the training of sixty-five persons, has shown me that properly qualified young women are readily in the preparation and standardization of the various biologic reagents employed in this important and intricate reaction and to conduct the test in a thoroughly reliable manner. Courses of instruction are also offered to persons having laboratory experience, in bacteriology and the preparation of bacterial vaccines and in advanced clinical pathology, the latter course embracing instruction in such subjects as the serologic differentiation of pneumococci; the determination of blood sugar, blood urea and similar chemical methods; the preliminary tests for blood transfusion; the bacteriologic and microscopic examination of milk and water and work of a similar nature. As stated above the most attention is devoted to a training in methods and technic, although the students also acquire a fairly good knowledge of the clinical applications and importance of the work in which they are being instructed. When their instruction is finally completed I feel confident of their ability to render valuable and efficient service as technicians, although I constantly advise that it is necessary for them to work under supervision until they have acquired further experience and greater confidence in their work and abilities.

The majority of our technicians have been offered salaries averaging \$900 a year with maintenance provided in the hospitals in which they are employed; it would appear that this is a fair wage for at least the first year's work. After this time the technician who proves herself worthy, by reason of extended experience and good work, should expect increased remuneration.

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### PROFESSOR OSLER

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The medical profession in the month of July over the civilized world stopped a little while to think of Sir William Osler who on the 12th day of July celebrated his seventieth birthday.

While Osler bears an English title and is

Regius professor of medicine in Oxford University we think of him as an American with American sympathies and aspirations. Osler's contributions to medicine have been immense. Not so much in the way of discovering new things as in enlarging the scope of the field of medicine and in presenting a clearer conception of what the practice of medicine really is. Few men have had so wide of vision of the true function of medicine. The genius of Pasteur pointed the way to an entirely new science of medicine; the vision of Osler pointed the way to a correlation of methods of practice which would give the finest results to the physician in a broadened mental conception of his duties and services to his patients. No man in the generation has been a greater inspiration to practitioners of medicine of high or low degree. No man has inspired a greater affection among those who knew him personally or who only had the opportunity to reading his writings.

As a student at Toronto and at McGill, Osler was noted for his independence of traditions and for original ideas of what medicine really was. After two years foreign study he began teaching pathology in Montreal, but he soon carried pathology into the wards as a part of medicine. His fame as a teacher brought him to Philadelphia in 1884 as professor of clinical medicine and to Johns Hopkins in 1889. During the eleven years of work in the great universities and hospitals of the United States, his personality became a great factor in the advancement of American medicine. An affection grew up between Osler and the great men associated with him, not only with associates in the faculties but with the students who were fortunate enough to come under his instruction and when in 1905 he accepted the position of Regius professor in Oxford we all felt a personal loss but consoled ourselves that perhaps greater activities would come to him in his new field and that only an ocean separated him from America, a common language and the same aspirations would keep us together. A fact of the greatest importance in developing the warm feeling of respect and affection we had for him was his personal qualities, his great erudition and culture, his dignified and courtly bearing and his regard for men.

There appears a most inspiring photograph on page 379 of the New York Medical Journal of Secretary Baker conferring membership to the Legion of Honor on Major General W. C. Gorgas on behalf of the French Government. Will it ever come about that our government will confer decoration and honors on men who by silent service save lives as well as on generals and on commercial exploiters? We are informed that the

former surgeon general of the army was the son of General Josiah Gorgas of the Confederate States Army and received the degree of bachelor of arts from the University of the South and the degree of doctor of medicine from Bellevue Hospital Medical College in 1879.

In the Kentucky Medical Journal for March comes greetings from our genial friend Dr. Arthur T. McCormick, editor of the Journal, who says, "It is good to be back amongst my old friends working for the people of Kentucky. There will always be the regret that I did not get to France and share the experience there of the gallant men of Base Hospital No. 59."

Even so, Dr. McCormick was more fortunate than the writer who after submitting a lock of hair to the war department was informed after careful inspection there were too many gray hairs for useful service. We were in a measure consoled by serving on the exemption board which was equal to full war service. Dr. McCormick's optimism is inspiring and should be recorded.

Unified as never before, not only the splendidly compact organization of the medical profession of the state but all of its allied agencies which have assumed quasi health functions during the war, including the Red Cross, the Federated Women's Club, the public health nurses, the great insurance companies, the employers of labor, the labor unions, the fraternal orders, the farmers organizations—all these have shown by their really wonderful co-operation during the trying restrictions of the recent influenza epidemic a degree of intelligent understanding of sanitary necessity and respect for organized and intelligently controlled sanitary authority that makes it highly probable that another generation of politicians must arise before any coterie of them, however selfish, venal and desperate, attempts to stem the tide of sanitary evolution by making the health organization of the state one of the tools of a designing clique. We have a great health machine composed of republicans, of democrats—of every element of its citizenship which really loves Kentucky and it is impregnable as long as it unitedly, efficiently functionates for the betterment of every citizen of Kentucky and preserves that aloofness from partisan politics which is essential to the character of its service.

#### THE GOOD SURGEON: THE MOST IMPORTANT FACTOR IN THE TREATMENT OF WAR WOUNDS

The surgeons and pathologists, who for four years have intensively studied war wounds, have formulated many views—many apparently contradictory views—such as, various chemical agents against no chemical agent; moist dressing against dry; heat

against cold; frequent dressings against infrequent and against both, no dressings; sunlight and electric light against occlusion; immersion versus hot air; bacteriologic control against clinical judgment; vaccines, toxins, and foreign proteins against normal reaction; wound inoculation of harmless organisms against wound sterilization; isotonic against hypertonic solutions; paste competing with paste-bip against ip, sap against both, and chromatic pastes against all. Does not the intensive study of war wounds for a short period equal and recapitulate the more leisurely study during the thirty years since Lister brought out the carbolic spray? And is there not slowly emerging from the present conflict of views the one and identical agent of successful surgery that emerged from the post-Listerian period—the good surgeon?

In civil surgery in America what was the agency by which mastery was achieved over appendicitis, cholecystitis, tubal infection, adenitis? What agent succeeded best in resection of the intestine; in gastroenterostomy; in suppurating stone in the kidney; in resection of the stomach; in infection of the subcutaneous tissue? What agencies achieved survival? But one—the sound surgeon, who always creates opportunity. It is possible that in these four intense years of war surgery, in which there has been accumulated more experience in traumatic surgery than during the past thirty years, we have traveled around the same circle as in civil surgery and have again found the same surgeon?

By sound surgery we mean the assumption of complete inclusive responsibility for every item that enters into the result; the consideration of the wound as well as the patient; the development of an ability to read the wound as well as the man aright. It means quick innocuous, timely intervention; it means seeing clearly the tomorrow of the wound; it means no intervention unless there is to be a net gain; it means a sharp knife, a good anesthetic, a painless innocuous dressing; it means as much respect for the tissues of the anesthetized man; it means a training in judgment that unerringly tells when to cut, how far to cut, when to quit cutting. It plays all the defenses and reparative forces of the patient. Good surgery is the exponent of no single method. It recognizes the anatomical and environmental situation in which chemical and physical agencies are useful. Good surgery exploits physiologic rest and fluids and sleep; gives little pain. Good surgery evokes confidence; and confidence begets rest; and rest begets restoration. Good surgery, then, makes use of antiseptics and physical forces, just as it uses incisions, counter-drainage, revisions, skin-grafting, blood-transfusion. Good surgery does not substitute an easy formula for its principles; above all, it always is dissatisfied with its work and is open to suggestion.

What can the good surgeon accomplish in war with wounds, with good opportunity but no antiseptics? Without antiseptics he can close by primary union a higher percentage of contaminated wounds than he can with antiseptics; he is able to remove

damaged tissue with such accuracy that the natural defenses of the revised wound become its best antiseptic; he closes penetrated knee joints more securely without than with antiseptics; he closes penetrated skulls without, better than with, antiseptics; he operates on perforated intestines more successfully without than with antiseptics; he clears up foul and infected superficial wounds as well without as with antiseptics; he meets gas gangrene with the timely use of the knife as well without as with chemical agents. He closes healthy superficial wounds with early suture tied lightly; healthy wounds that cannot be closed by suture he closes by skin grafting, both as a healing and as a bacteriocidal policy; he closes fecal and urinary fistulæ without antiseptics.

On the other hand, he realizes equally that in compound fractures with or without bone infection, in deep, recessed wounds, in pyocyanus infection, in many other wounds, antiseptics may have great advantage, and he uses them and uses them well. In certain phases of a wound, he would use Carrel-Dakin; in another, acetic acid; in another, hot pack; in another, incision—he makes physiologic incisions today to avoid the tissue tension of tomorrow—in another, a transfusion; in another, sunlight or electric light; in another, continuous alcohol to make a scar covering.

In the rush of a great battle, he would incise for drainage, and in addition he would make "physiologic incisions" to avoid tension that is sure to follow the next day from the inevitable infection.

But in quiet times, he would dissect out with microscopic exactness every atom of devitalized tissue. He reads accurately not only the wound, but the patient; not only the patient, but the military situation; not only the military situation, but the condition of the infection soil, the state of transport, his surgical assistance, and the type of nursing care—that is, he weighs accurately his chances for success. Therefore, the army medical service and the wounded man pin their hope and their faith first, last, and always to the one agency of wound treatment that in civilian surgery emerged clearly from the confusion of the Listerian period, is emerging clearly from the confusion of the four years of military surgery—the sane, sound surgeon.

What our army needs beyond all else is an adequate number of sound surgeons; and these men should be given every opportunity for their development. The next most important factor is—not chemical agents, but a transport so organized that the sound surgeon comes in contact with his patient at the earliest moment; and that there is provided for each wounded man requiring operation at the front for an average period of half an hour, a table and a good surgeon.—(War Medicine and Surgery.)

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Whereas, the present influenza epidemic caused approximately 500,000 deaths in the United States, and

Whereas, a large proportion of these deaths were

produced by pneumonia and other complications, and

Whereas, influenza, pneumonia, and allied diseases now cause approximately one-tenth of all the deaths in the United States, and

Whereas, medical science is not yet in possession of complete data as to the cause, modes of transmission, prevention, and cure of this disease and its complications, and

Whereas, the possession of this knowledge is of grave social and economic concern to the nation:

Therefore be it Resolved, that it is the sense of the members of the section on Industrial Medicine and Surgery of the American Medical Association, here assembled to discuss influenza, that Congress should and is hereby urged to appropriate not less than \$1,500,000 to be used under the direction of the U. S. Public Health Service for the investigation of the causes, modes of transmission, prevention and cure of influenza, pneumonia, and allied diseases, this sum to be made available to July 1, 1922.

Transmitted by order of the session, held in Atlantic City, June 13, 1919.

DR. OTTO P. GEIER, Sec'y.

Cincinnati Milling Machine Co.,  
Cincinnati, Ohio.

1.

Q. Will the epidemic again appear?

A. The epidemic will recur, for medical history shows that we have had a series of influenza or grippe epidemics the last of which proved to be of the most virulent type. There immediately occur to me those of 1867 and of 1889 to 1895. The Metropolitan Life has issued some very definite figures on this latter epidemic covering millions of policyholders, which show an average increased mortality for the five years following of 40 per cent. above the normal death rate. Any estimate of economic loss should include the 40 per cent. increased mortality that, in all likelihood, will similarly occur in the next four or five years.

2.

Q. Is its origin fairly well known? If not the likelihood of definite information by research.

A. Much private research has been carried on, but its origin and spread is still undetermined. This must be collected and further stimulated, for only through careful research is there any likelihood of definite information.

3.

Q. What success in the discovery of an antitoxin?

A. The possibility of the discovery of a real antitoxin for influenza is wholly dependent upon the discovery of the actual germ, causing the disease.

4.

Q. The possibility of collecting necessary information and its distribution among the people to reduce the dangers of its spread and increase the chances of recovery?

A. I need but cite two of many similar researches, successfully undertaken, that have practically eliminated the dangers of the spread of disease, to-wit,

malaria and typhoid. Except for our knowledge of typhoid, the armies of Europe would have been decimated by this disease alone.

5.

Q. The generally bad after effects of the disease?

A. The generally bad after effects of the diseases are unfortunately too well known by the profession. The Red Cross chapter in Cincinnati is expending perhaps \$200,000 in an effort to examine physically every person that has suffered with influenza; to discover the pathological conditions—bad hearts, bad kidneys and lungs—resulting from this epidemic, and relieving the poverty and chronic invalidism that accompanies it.

6.

Q. The economic loss to the country of the epidemic?

A. The economic loss can hardly be estimated. The 500,000 deaths alone represent \$2,500,000,000 economic loss. Economists all agree to the fact that \$5,000 is the minimum social and economic value of a human life. It is safe to say that 10,000,000 people had the disease and that they lost 150,000,000 working days. At a minimum combined loss of wage and production of \$7 per day, there has been another \$1,000,000,000 of economic loss to the country. In other words, conservatively speaking, we had between \$3,000,000,000 and \$4,000,000,000 loss in this last epidemic.

## SUBSTITUTES FOR BLOOD TRANSFUSION

There exists, as Rous and Wilson say, a great and urgent need for an injection fluid that can be satisfactorily employed instead of blood for transfusion in cases of hemorrhage. That this need is greatest at or near the battle fronts in Europe goes without saying. Nevertheless there is a constant need of such a fluid in everyday emergency work at home.

The reason that blood is the ideal transfusion fluid is not that it is blood nor that it contains hemoglobin or other blood substances, but because the liquid (the water) that it contains is held by the colloids of the fluid in such a way that it is held by them for a longer period than so much pure water would be and therefore it remains longer in the vessels and gives the heart something to push against, so to speak. If one introduces pure water into the vessels of the body it is almost immediately given up and excreted by the kidneys. Water held by colloids, on the contrary, tends to be held in the body until the colloids holding the water are split up by the ferments of the body and the water is set free. Salt solutions not held in colloidal combination act as does pure water. Obviously the ideal fluid for injection after hemorrhage is blood plasma, for it is a colloidal solution in which the water is held in a physiologic stable way. But, also obviously plasma is not always obtainable on short notice. It has been shown that when more than half the total calculated blood volume had been taken from an animal and when the carotid pressure had fallen to the physi-

ologic zero, the pressure was instantly and permanently restored to normal by injecting an equivalent amount of plasma. A saline solution on the other hand brought about only a slight transient recovery of the pressure.

As substitutes for plasma or blood in transfusion Hogan has recommended and used a 2.5 per cent. gelatin solution, and Bayliss a 6 per cent. gelatin or a 7 per cent. gum acacia solution. The acacia has the advantage over gelatin that it can be sterilized without danger of hydrolizing it and thereby rendering it useless. Boiling it does no damage. Also acacia is protein-free and therefore will not produce anaphylaxis. A 2 per cent. acacia solution at first raises the lowered blood-pressure to normal but the rise is very transient. A 4 per cent. solution is more satisfactory, but this, or even a 5 per cent. solution, is not effective in all cases. Six or 7 per cent. is required if one is to bring back the normal pressure in an organism depleted of its fluid reserves.

As Rous and Wilson say, the needs for a blood substitute may be widely different in different cases. When the hemorrhage has been rapid and has been completely checked, almost any harmless isotonic solution will tide the patient over. It matters little that the fluid will soon leave the vessels, for the patient's fluid reserves are almost intact, as is his ability to manufacture a plasma rapidly. At the other extreme are those instances in which the blood has been draining steadily away and there remains in the body no source of an immediate restoration of fluid. Here half-measures can not suffice. A fluid must be furnished which will take the place, over many hours of the lost blood bulk. Except for the blood or plasma of other human beings, fluids containing from 6 to 7 per cent. of gum acacia are the best at present available for the purpose. Intermediate cases can undoubtedly be much helped by a 2 or 3 per cent. acacia solution or by Hogan's solution. In view of our ignorance of the after-effects of these foreign substances it is advisable not to inject more than the needs of the case demand.—(Exchange.)

### THE LOSS OF POTENTIAL LIVES DUE TO THE WAR

In a lecture at the Royal Institute of Public Health on "The Effects of the War as Shown in Vital Statistics," Sir Bernard Mallet said that in England and Wales the births registered in 1913 numbered 881,890. In 1915 they fell to 814,614. In 1916 there was a further fall to 780,520, the slighness of the fall from the previous year being due to the boom in marriages in 1915, when the number celebrated reached the "record" figure of 360,885. In 1917 the births fell to 668,346, a decline from the 1913 figure of 24 per cent. Up to the present we had lost in England and Wales in potential lives, on the standard of 1913, 650,000. He thought that it would be long before the birth rate reached even the figure of that obtained before the war. Serious as this loss is to the coming generations in our country, there is reason to believe

that we have suffered less than the other belligerents. In terms of percentages of loss on the prewar population, Germany has lost in potential lives the equivalent of 4.5 per cent. of its total prewar population, Austria 5 per cent., and Hungary 7 per cent. Sir Bernard Mallet calculated that the present war has cost the belligerent countries of Europe not less than twelve and one-half millions of potential lives. While the war has filled the graves, it has emptied cradles.

### THE OLD MEDICAL FACULTY OF STRASBOURG

Some curious things come down to us from the past. It is probable that a medical faculty existed at Strasbourg before 1514. It is stated that a series of books on medical science were printed there in 1514-1517-1528-1533 and 1534. In 1538 Jacob Sturm, the Stadtmeister, founded a Lutheran academy with a rector and eight professors, two of whom taught medicine, one dealing with theory, the other with practice. In 1621 it was erected by Emperor Ferdinand IV into a university and in that year it created two doctors. Their thesis were interesting. Andrees argued as to the truth of the common saying "New doctor, new graveyard," and Johannes Carlus debated the question whether a Christian physician may without offense to his conscience treat Jews, Turks, Atheist as enemies of their country. The studies of Strasbourg however were not confined to such futilities, chairs of anatomy and botany were founded in 1652. From 1566 the bodies of executed criminals had been handed over for dissection and medicine was regularly taught. When the city was annexed by Louis XIV in 1681 the university retained its privileges and under French rule the teaching of medicine continued to expand.—(Abstracted from London Lancet.)

From the editorial pages of the New York Medical Record for December 21, 1918, we abstract the following in relation to Paris epidemics of the sixteenth century:

As a contrast to what New York encounters in the current decades one may read with interest of what was going on in Paris three centuries ago. Early in the sixteenth century the "pest" scourged the metropolis seventy years before the influenza is said to have appeared under the term coqueluche (now limited to whooping cough). But according to Paré this malady had already manifested itself in 1510 and was even then termed by the people coqueluche, with all the symptoms of influenza. The latter had many victims among rich and poor. The question arises, was this epidemic in 1510 a plague or grippe or did both appear in Paris contemporaneously? In 1519 the pest had not left Paris and assemblages of people were discouraged. In 1531-3 the pest was again prevalent and with the public fully possessed, if not obsessed with the idea of contagion, the precautions ordered could readily have been exaggerated. Every

possible avenue of contagion, direct or mediate, was respected. In 1561-2 a new plague appeared under the name of lues pestifera. The correspondent of *Le Progres Medical* for October, from which the above citations are taken, furnishes no clinical data for these outbreaks and prophylaxis centered on isolation of pest houses and inmates and destruction of substances proceeding from such houses. Another epidemic in 1578 was like dysentery or a choleriform affection. In 1580 occurred the epidemic which passes in history for the first Parisian experience with modern influenza.

The word *coqueluche* was one of several similar names for a headaddress and was believed to have meant in the vernacular headache, and an epidemic in which the latter was the most striking symptom. The phenomena of the *coqueluche* agreed in all respects with the leading symptoms of influenza. Its contagiousness was so great that but a small fraction of the people escaped. But no one seems to have perished from the malady. It passed over the city rapidly but was soon followed by an epidemic termed the pest which required the intervention of the state in erecting temporary pest houses. Finally in 1596 another visitation appeared which killed many people with "pleurisies." It is evident that two pandemics occurred under the names pest and *coqueluche*, the latter answering to influenza while the former probably bubonic plague, in part, could have applied likewise to typhus and even to less severe maladies like the greater individuality than other pandemics. The term *coqueluche* came to mean an acute epidemic bronchitis and eventually whooping cough.

### RADIUM ACTION ON THE HEMATOPOIETIC SYSTEM

Drs. John A. P. Millet and Theodore Mueller of the Hospital of the New York Institute for the Study of Malignant Disease, published in the *Journal of Cancer Research* for April, 1918, an elaborate paper on "Some Phases of Radium Action" with special reference to the hematopoietic system and reached the following conclusions.

1. The blood of ten cases of squamous-cell carcinoma of the cervix uteri and vagina has been studied, in order to ascertain the immediate and remote effects of radium and x-ray treatments upon the formed elements of the blood.

2. The immediate effects of radium on the blood are not altered qualitatively by previous x-ray or radium treatments, although the quantitative action may be somewhat diminished during a second treatment.

3. The remote effects of radium on the blood are essentially similar to the effects of combined x-ray and radium treatment.

4. Individual slight differences in response to radium applications are often noted to occur again on a second application in the same individual.

5. The immediate effects of radium on the blood are the following:

- a. An immediate drop in total white count reaching its maximum from one-half to six hours after the application.

- b. A return of the total white count to its former level within twenty-four hours after the application, usually within the first twelve hours.

- c. An occasional secondary rise of the total white count to a point well above its original level from twelve hours to three days after the application.

- d. A close adherence of the total polymorphonuclear count to the curve of the total white count.

- e. An absence of characteristic changes in the total lymphocyte and total large mononuclear counts.

- f. A tendency of the total lymphocyte count to follow in some degree the fluctuations of the total white count, especially when these are marked. This effect is not constant.

- g. A tendency of the relative lymphocyte count to drop, and of the polymorphonuclears to rise during the course of treatment. This tendency is reversed during the period immediately following the removal of the radium.

6. Remote effects of radium treatment on the blood are as follows:

1. Fall in lymphocyte count from two to four weeks after treatment, sometimes lasting till the end of the second month.

2. Fall in polymorphonuclears after treatment, sometimes simultaneous with the fall in lymphocytes but usually coming later and being less striking.

3. An attempt of the lymphocytes to recuperate, as shown by a rise in most cases at some later date, varying from three to nineteen weeks after treatment, to the approximate level seen before treatment.

- b. Late.

1. Change in the relative counts as the patient's resistance weakens, with increase in polymorphonuclears and decrease of lymphocytes, but without leucocytosis.

2. Terminal leucocytosis, due in the main to increase of the absolute polymorphonuclear count, although usually accompanied by an absolute decrease in lymphocytes.

### PAY OF ARMY SURGEONS FOR THE CIVIL WAR

Our issue of November, 1861 quotes from a circular from the war department, January, 1860, as follows: Assistant surgeon, under five years service \$53.33 per month, rations \$36, forage for horse \$8, servant \$12, clothing for servant \$2.50, servant's rations \$9. Total receivable \$120.83. Over five years service \$70 per month, other allowances same, total receivable \$137.50. Total receivable over ten years' service \$173.50. Surgeon under ten years' service \$80 per month, total amount for servant \$47, aggregate receivable, including horse and servant \$187. Surgeon over ten years' service \$80, aggregate amount receivable \$223. Allowance for forage and servants is paid only when they actually employ and keep in service the number of servants and horses charged

for. In addition both assistant and full surgeons are allowed an additional ration per day after the termination of every five years' service. (Note: As we understand the terms, the actual receipts besides allowances for horse and servant were as follows: First five years, assistant surgeon \$1072; second five years without promotion \$1704; second five years with promotion to grade of surgeon \$1824; third five years, rank of surgeon \$2256; fourth five years, rank of surgeon \$2688. Considering the different value of the dollar in purchasing power, these salaries are not very different from the present.)

In January, 1862, a bill was introduced providing for a surgeon general ranking as brigadier general, a sanitary inspector general ranking as colonel, six sanitary inspectors ranking as lieut. colonels, surgeons of first class ranking as majors, fifty surgeons of second class ranking as captains and not over seventy assistant surgeons ranking as first lieutenant, all as of cavalry. This was essentially the same as the system up to the present, except as to the numbers. Salaries are not mentioned but editorially the bill is highly commended and they were therefore, apparently regarded as satisfactory.—Buffalo Medical Journal.

### CANCEROUS DISEASES IN NORWAY

Dr. F. G. Gude, secretary to the Norwegian committee for Cancer Research presents some interesting facts in relation to cancerous disease in that country in the Journal of Cancer Research for August, 1918, a part of which we abstract.

The Kingdom of Norway occupies the northern and western part of the Scandinavian Peninsula, with a coastline of 1700 miles fronting the Skagerack, the North Sea, and the Atlantic and the Arctic Oceans.

The total area is 124,495 square miles (thus slightly exceeding that of Great Britain and Ireland). The configuration of the country is very extended, making the distance from its southern point, Cape Lindesnes at 58 degrees N. L., to the North Cape at 71 degrees N. L., about 13 degrees of latitude, or 1000 miles or more as the crow flies.

The country is mountainous throughout its whole extent; the greatest elevations are to be found mainly near the western coast, which is protected by innumerable islands and indented by deep, ramified fjords that reach far into the mountainous number of valleys, in the southern part of the country, mostly converging and opening towards the southeastern lowlands, in the vicinity of Christiania, the capital.

Only about 4 per cent of the soil is cultivated, 7 per cent. being pasturage, 21 per cent. forests, and 69 per cent. naked mountains, lakes, glaciers, etc.

The population amounts to 2,400,000 inhabitants, irregularly and with greatly varying density scattered over the vast area. Of this population, 71.1 per cent. live in the country, and only 28.9 per cent. in towns, Norway thus showing a very low percentage of urban population.

The average of longevity is very high, the average length of life being 54.8 years for men, 57.7 for

women, next to Denmark the highest in Europe. This is, perhaps, mostly due to the low infant mortality.

During the period included in the following researches, Norway has been divided into 158 districts for its medical administration.

The material on which these researches are based is:

1. The official mortality reports for the years 1902-1911.

2. The material collected by the Norwegian committee for cancer research, 1908-1912.

### Mortality Statistics, 1902-1911—The Increase in the Mortality from Cancer

The official medical reports of the last half century show a continuous rise in the number of deaths from malignant tumors, from 115 deaths in 1854 to 2182 in 1904, i.e., a proportion of 1 to 18.9.

But this appalling increase is, of course, only apparent. During the same fifty years the population has grown in the proportion of 1 to 1.6, and the knowledge of the causes of deaths in the proportion of 1 to 7.2 (from 11.9 per cent. to 86.3 per cent. of all cases).

The real increase in the mortality due to malignant tumors during these fifty years, 1854-1905, will consequently not exceed the ratio of 1 to 1.66. And even this figure may probably be somewhat reduced, considering that a constantly increasing number of deaths has been recognized as due to malignant tumors. Still it can not be denied that the figures, given tend to show a certain increase in the number of deaths in Norway referable to cancerous diseases, from the middle of the last century up to the present time.

During the years 1902-1911, the total mortality from all malignant tumors (carcinoma and sarcoma) in Norway amounted to 22,111 cases, varying slightly from year to year. (In 1914, the cancer mortality was reported to be 2484 cases).

But during the period in question, the percentage of known cases of death was 87.4, 12.6 per cent. of all deaths not being established by the health officers. The above reported number of deaths by malignant tumors may consequently be augmented by 12.6 per cent., in order that the exact figure may be arrived at. If this be conceded, the mortality from malignant tumors in Norway during the years 1902-1911 may be estimated at 10.7 per 10,000 the "cancer figure."

Lieut.-Col. Horace Evans, M.C., U. S. A., has been made chief of the Section of Physical Reconstruction, succeeding Col. Frank Billings. Col. Evans will be one of the guests at the home coming meeting of the Medical Society of the Missouri Valley at Des Moines, September 18 and 19 and will give an illustration of the work of reconstruction. Other guests at this meeting will include Dr. E. C. Rosenow of the Mayo Foundation, who will talk on Influenza, and Dr. Frank Smithies of Chicago whose paper will be on Anemia.

## SOCIETY PROCEEDINGS

Members of the Appanoose County Medical Association held an informal meeting Tuesday evening, June 24, at St. Joseph's Hospital, a large number of the members being present.

The principal feature of the evening was a paper presented by Dr. B. F. Sturdivant, formerly of this city, but now of the Mayo Institute, at Rochester, Minn. His subject was "The Flu Epidemic," and after the reading, the disease was generally discussed.

The Calhoun County Medical Association held a picnic at Stony Point, on the south lake. A picnic dinner was one of the big attractions and twenty-five physicians of the county were there. A good program of things of greatest interest to the physicians was given and there was a lot of fine visiting indulged in. Dr. Beach, the lady superintendent of the Rockwell City women's reformatory is secretary of the association.

The meeting of the Decatur County Medical Society at the public library parlors was well attended and the session was one of the most interesting and most profitable that the society has ever held. The attendance from towns outside the country was good. The program included papers by Dr. F. W. Sells of Osceola, Dr. Enos Mitchell of Grand River, Dr. G. I. Armitage of Murray, and Dr. E. E. Bamford of Centerville. Following the reading of the papers upon medical and surgical subjects a round table was conducted. The following physicians and surgeons were in attendance at the meeting: F. W. Sell of Osceola, G. I. Armitage of Murray, J. S. Coontz of Garden Grove, C. E. Lovett of Lineville, I. M. Lovett of Lineville, Wm. F. Dean of Osceola, E. E. Bamford of Centerville, O. H. Peterson of Lamoni, H. M. Hills of Lamoni, Bertha A. Greer of Lamoni, A. Dill Greer of Lamoni, H. C. Bone of Grand River, Enos Mitchell of Grand River, Dean S. Burbank of LeRoy, G. P. Reed of Davis City, J. W. Wailes of Davis City, T. S. Duff of Cainsville, Mo.; B. S. Walker of Corydon, O. W. Foxworthy of Leon, F. A. Bowman of Leon, H. L. Eiker of Leon.

The medical profession of Iowa County has revised its fee schedule, to more nearly conform to those of neighboring communities and to enable them to better adjust themselves to the prevailing economic conditions.

The advance in fees average about 33⅓ per cent. above what they formerly were and a uniform printed schedule has been issued. The following are a few items: Ordinary office calls, minimum, \$1; day visits in town, \$2; day visits in country, \$2, plus \$1 for each mile; night visits over bad roads, 50 per cent. more than regular charge; night visit over bad roads in the country, 100 per cent. more than regular charge; normal case of obstetrics, \$20; and \$1 extra for each mile in the country.

The members of the Pocahontas County Medical Society in convention at Plover last Tuesday backed up the lead of the Live Stock Breeders Association and unanimously passed the following resolution: At a meeting of the Pocahontas Medical Society at Laurens, July 8, 1919, the question of hard surfaced roads was discussed, and a motion was made and carried unanimously that we petition the board of supervisors of Pocahontas county to submit to the voters of Pocahontas county the proposition of hard surfacing its roads.

The regular meeting of the Poweshiek County Medical Society was held in Grinnell, Tuesday, June 24, and the doctors enjoyed an instruction clinic on tuberculosis. Dr. John H. Peck of Des Moines, president of the Iowa association for the prevention of tuberculosis conducted the meeting which was held in the assembly room of the Grinnell Savings Bank.

Following the program the doctors became guests of the Community Hospital Association. After the tour of the hospital the meeting adjourned to the Dr. E. E. Harris home where dinner was served followed by entertainment.

Those from out of town were Drs. Childers, Clark and Roberts, Oskaloosa; Dr. Hinshaw, Newton; Dr. Vernon, Tama; Drs. Busby, Simeral, and Ringena of Brooklyn; Dr. Williams, Montezuma; Dr. Ward, Gilman.

The regular meeting of the Scott County Medical Society was held September 2 at the Public Library, Davenport.

Dr. George Braunlich gave a talk on Dengue Fever and other diseases of the Philippines; Dr. A. B. Kuhl, read a paper on Myelogenous Leukemia, with presentation of a case and treatment; Dr. J. D. Blything, in a talk, related some of his impressions of France, and Dr. Geo. E. Decker, also, told of some of his experiences while overseas.

The following Scott county members have returned from the service and will resume their regular practice in Davenport: Drs. George Braunlich, J. D. Blything, C. E. Glynn, and George E. Decker.

Austin Flint-Cedar Valley Medical Association elected as officers at the Clear Lake meeting: Dr. O. M. Landon, New Hampton, president; Dr. A. B. Phillips, Clear Lake, vice-president; Dr. W. A. Rolf, Waverly, secretary.

Over fifty physicians and surgeons of southeastern Iowa attended the forty-eighth annual meeting of the Des Moines Valley Medical Association held in the court house and completed this afternoon at the First Congregational Church.

The morning's session was given over to the transaction of the regular business of the association with a number of physicians giving talks on subjects of interest to the profession. The meeting opened at 9:30 o'clock with the invocation by Rev. William Wilson, followed by an address by Dr. S. K. Davis of Libertyville, president of the association.

Drs. J. F. Herrick of Ottumwa, George Niblock of Derby, F. E. Hecker of Ottumwa, John De J. Pemberton of Rochester, Minn., Charles S. James of Centerville, and T. S. Bonnell of Fairfield, were all on the program and gave talks on technical subjects covering new phases developed in medicine and surgery.

The attending delegates were given a luncheon at the First Congregational Church with a program of toasts and talks following. Lieut. Col. J. F. Clarke, formerly commanding officer of Base Hospital Unit R, and now practicing medicine at Fairfield, attended the meeting and gave a talk at the church.

The nominating committee was named at the morning session to select a list of candidates for the various officers in the association which were to be elected at the afternoon session.

Dr. L. Torrence of Blakesburg was elected president, Dr. J. S. Lessenger of Mt. Pleasant, first vice-president; Dr. L. D. James of Fairfield, second vice-president, and Dr. J. F. Clarke of Fairfield, and H. C. Eschbach of Albia members of the board of censors.

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Iowa and Illinois Central District Medical Association at its annual meeting in Davenport, elected the following officers: President, Dr. W. D. Chapman of Silvis; vice-president, Dr. G. F. Harkness of Davenport; secretary, Dr. A. E. Williams of Rock Island; treasurer, Dr. T. D. Starbuck of Davenport; reporter, Dr. R. P. Carney of Davenport; censors, Dr. W. W. Wiggins of Milan and C. F. Jappe of Davenport. The next meeting will be in Rock Island.

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Dr. Lenna L. Meanes and Miss Esse V. Hathaway, who are spending July in New York, assisting in the preparations for the international conference of women physicians, opening in New York September 15, will return to Des Moines to remain through August. They plan to spend September and October in New York, where they will have an active part in the conference.

Dr. Meanes is acting chairman of the health section of the program committee, the chairman being Dr. Augusta Rucker of New York, who will come to Iowa to serve as medical consultant during the ten days of the baby health conference at the Iowa State Fair. Dr. Rucker is director of the health division of the bureau of social education of the war work council, national board of the Young Women's Christian Association and is also a medical director at Lord, Taylor & Best's in New York City.

Miss Hathaway is attending to the correspondence connected with the conference, especially to that with the women physicians who are coming from foreign countries. Both Dr. Meanes and Miss Hathaway were associated with the social morality committee of the war work council during the period of the war and also in the continuation of the lecture work in the months following, the one as supervising lecturer and the other as executive organizer in the states of Iowa, Wisconsin, Nebraska and the Dakotas.

Dr. Katherine Bement Davis, who is well known in Iowa, and Dr. Edith Hale Swift of Boston were the two physicians chosen to visit the foreign countries, in order to interview women doctors with a view to bringing them to this country for the conference. Already nearly thirty women physicians from overseas have accepted the invitation.

Another prominent physician actively interested in plans for the conference, who is well known through Iowa, is Dr. Josephine Hemenway Kenyon of New York, associate chairman of the bureau of lectures of the social morality committee of the national board of the Y. M. C. A. Dr. Kenyon is a member of the relationships committee for the conference, also of the section of the committee which is arranging the program on the psychological aspects of the health question.

This international conference is called for the purpose of discussing the special contribution that women physicians can make in the solution of the social problems of reconstruction and many prominent women physicians from this country as well as abroad will be in attendance at the conference, which will have its headquarters at the Waldorf.

During the last week of the physicians' conference a general conference will be held to which several national organizations of women have been asked to send two representatives. Among those invited to send delegates are: Association of Collegiate Alumni, Council of Jewish Women, General Federation of Women's Clubs, Medical Women's Association, Congress of Mothers and Parent-Teachers, American Woman Suffrage Association, Young Women's Christian Association and the Business and Professional Women's League.

The purpose of the general convention is to reach a common ground of understanding upon which may be based methods for cooperation in an endeavor to deal with social problems affecting women of the United States.

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### COMING MEETINGS

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The next annual meeting of the American Public Health Association is to be held at New Orleans, Louisiana, October 27-30 inclusive. The central themes of discussion will be southern health problems, including malaria, typhoid fever, hookworm, soil pollution and the privy, etc.

The general belief among the health profession is that influenza will return next winter, and a full session will therefore be devoted to this subject for the purpose of developing methods of control.

A special effort has been made to arrange the program to meet the practical needs of health officials. Accordingly there will be discussion on such questions as the attitude of legislators towards public health, the obtaining of appropriations, cooperation from women's clubs, health organizations, etc., the organization of health centers, and so on.

The programs of the sections will, as usual, deal with public health administration, vital statistics, san-

itary engineering, laboratory methods, industrial hygiene, sociology and food and drugs.

Two special programs will also be presented on various phases of child hygiene and personal hygiene.

Winter railroad rates to New Orleans will be in effect from all points after October 1.

The program of the meetings will be published in the American Journal of Public Health appearing October 5 or may at that time be had upon application to the secretary, 169 Massachusetts avenue, Boston, Massachusetts.

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### PERSONAL MENTION

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Major Edward S. Parker has returned to Fort Des Moines. He served in a base hospital in the United States, and in the orthopedic hospital at Birmingham, Eng. Later still, he went to France, became a major, and served at Savenay hospital center. He was graduated at S. U. I. College of Medicine in 1908.

Major Charles F. Smith, who was in charge of a base hospital at Tours, France, has just arrived home after having been mustered out of the service in an Eastern camp.

Dr. R. F. Bellaire of Sioux City has returned from ten months in the naval service at the Great Lakes Training School, where he specialized in government x-ray work. He received the commission of senior lieutenant. Dr. Bellaire has purchased the office and entire equipment of Dr. Browning and will resume his work in the offices in the Trimble building.

Dr. Hartman arrived in Algona last week and has resumed practice. After being discharged from the service he did post graduate work in Chicago.

Dr. C. F. Vanatta has sold his medical practice to Dr. W. L. Hoffman, and the latter has already taken possession. Dr. Hoffman was located at Gilbert, Story county, prior to his enlistment in the war medical service, in which service he attained the rank of major and served in hospitals in this country and abroad. He is just home from the war.

Major Thomas J. Duffield of Clarinda, who for a year has been attached to the headquarters hospital in France, returned home on leave of absence of ten days. Major Duffield will then return to Paris, accompanied by his family, where he will be affiliated with the Rockefeller Foundation.

Major Morganthaler who has recently returned from army medical service, has resumed practice at Templeton.

Major C. H. Clark who has been past surgeon at the Rock Island Arsenal has located in Davenport.

Dr. M. K. Heard has returned to Iowa City after an absence of three months in war work.

Dr. Donald Macrae, Jr., will open offices on the fourth floor of the World-Herald building in Omaha. Dr. Macrae, who left Council Bluffs as a major commanding Hospital Unit K, recently returned from sixteen months' service overseas, where he attained the rank of colonel as commanding officer of Mobile Hospital No. 1 (Unit K). Dr. Macrae's extension of his practice to Omaha does not mean Council Bluffs

will lose him, the doctor continuing to live in this city where he has spent his entire life. Dr. Macrae has associated Dr. Louis E. Hanisch with him in the office across the river. Dr. Hanisch was Colonel Macrae's supply officer in the mobile hospital organization. Dr. Hanisch will give his entire attention to Omaha office, while Dr. Macrae will spend but a certain portion of the day in looking after the Omaha work.

Dr. B. Ensly of Shell Rock recently entered Harvard University where he will take up graduate work in Medicine.

Dr. J. A. W. Burgess of Iowa Falls, is taking a graduate course of medical instruction at Harvard Graduate School of Medicine.

Major Glomset of Des Moines recently addressed the Tama County Medical Society on influenza and pneumonia serums.

The Hampton clinics, medical staff Lutheran hospital, recently purchased one hundred millograms radium to be used in this clinic.

Des Moines is unfortunate in that it has no hospital to which children suffering from contagious diseases can be admitted. A children's hospital, built on the cottage plan so that contagious cases could be safely and adequately cared for, and staffed by physicians trained in the treatment of children's diseases, would be a blessing to the children of the city, particularly if it is so endowed that it can offer free service to all who are in need.—Oliver J. Fay.

Lieut. Col. Wilbur S. Conkling has been selected by joint authority of the state and federal health departments to take charge of the organization of the battle which is to be staged to destroy or suppress venereal diseases. Colonel Conkling practiced medicine for more than twenty years in civil life and served on the border as surgeon of the old Third Iowa. He then served in France for a time as surgeon of the 168th Regiment; then had command of large sanitary units. He has had wide experience. The state board of health urged him to accept this place. His work will consist of organizing clinics in all the larger places. This means that local physicians and health authorities are to be called together and the campaign planned in each community. Colonel Conkling will organize and direct the work for the entire state. He will maintain his regular physician's office in Des Moines.

Dr. T. A. King of West Union will remove to Mason City where he will resume the practice of medicine.

Captain George W. Frank of Davenport has returned from overseas service and will resume practice in Davenport.

Dr. Placido, R. V. Hommel and Dr. W. Miller of Elkader have formed a professional partnership.

Major C. L. Jones of Shenandoah has returned from overseas and has been assigned to Camp Dix.

Dr. Walter T. Bronson of Pueblo, Colo., has become an assistant to Dr. E. E. Heaton of Centerville.

Dr. G. T. McCautiff of Webster City has been appointed local surgeon to the Illinois Central Railway Company.

Dr. F. L. Wahrer of Marshalltown has entered into partnership with Drs. Lierle and Wolfe under the firm name of Drs. Lierle, Wolfe and Wahrer.

Dr. G. A. Latt, formerly of St. Ansgar, and recently of the U. S. Army Medical Service, locates in Osage.

Dr. John I. Marker has received his discharge from the army and will become a member of the Bamford Clinic at Centerville.

Dr. W. H. Thompson of Winterset was recently stricken with paralysis.

Dr. Roy Roberts Miller will specialize in diseases of the eye, ear, nose and throat at Grinnell.

Dr. Clinton Braun of Knoxville will become a member of the Iowa State University Medical faculty.

Major Harry C. Parker of Dubuque has been discharged from army service and has returned home.

Dr. E. Peo of Boone on account of impaired health has been obliged to retire from practice for an indefinite period and has gone to California to take up life on a ranch.

Captain Herbert M. Decker, Davenport, has returned from overseas.

Dr. G. F. Seevers of Centerville was elected president of the state board of health for the two-year term commencing July 1, 1919, succeeding Dr. W. L. Bierring of Des Moines. Dr. Seevers has been vice-president of the board. He is also a member of the board of medical examiners.

Dr. William P. Hoffman, formerly of Iowa University, and later of the Montreal (Canada) General Hospital, has returned to Iowa City and will soon open an office for general practice at Kalona, Iowa.

Dr. W. S. Devine, who was examining physician on the draft board during the war, has received an appointment as acting assistant surgeon of the United States Public Health Service, and will take charge of the examination of soldiers of Marshall county who are applicants as beneficiaries for war risk insurance.

Dr. La Mont Youtz, has returned after nearly two years service in the Army Medical Corps, much of which time he spent in the base hospitals in France. Dr. Youtz will locate in Des Moines and will open offices about August first in the new Iowa building.

Lieut. Col. Rodney P. Fagen, recently arrived from overseas, has not decided whether he will resume his old position as police surgeon. Dr. Fagen will continue his private practice in the Equitable building. Prior to the war he was city surgeon for six years.

Dr. Wallace Dunlap, captain in the medical corps, has received his discharge and returned to Des Moines.

Dr. C. E. Ruth of Des Moines will have associated in practice with him, his son Dr. Verl A. Ruth, who has recently returned from overseas service.

Dr. J. W. Fonda of Defiance has removed to Council Bluffs.

Dr. H. E. Eiel of Buffalo Center has recently been reappointed postmaster at that place, after a four years' term of service.

Dr. Corwin S. Cornell of Knoxville who has been in overseas service for two years has received his honorable discharge and will engage in practice at Knoxville.

Dr. Gus B. Young of Des Moines who, after entering the service with the rank of captain, was sent to the Presbyterian Hospital, Chicago, and later to the base hospital at Camp Cody and to U. S. General Hospital No. 26, Ft. McPherson, serving overseas at Evacuation Hospital No. 23 Voubeecort, also at Evacuation Hospital Nos. 1 and 37, Toul, was honorably discharged at Camp Dix July 1. Dr. Young will resume his practice in Des Moines.

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## OBITUARY

Dr. Melvin J. Bellinger of Council Bluffs died at the Jennie Edmonson Memorial Hospital, June 24, 1919, of cancer of the liver. Dr. Bellinger was born in Ogdonsburg, N. Y., in 1864. He came to Council Bluffs in 1886 immediately following his graduation from the medical department of Drake University, and engaged in practice of medicine with his brother, Dr. F. P. Bellinger, which continued until his health failed about five months ago.

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## MARRIAGES

Dr. Martin Burge of Sioux City, Iowa, to Miss Eva Gould Fisher of Sullivan, Mo. Dr. Burge is a B.Sc. and M.D. graduate from the Iowa State University.

Dr. R. D. Taylor of Spencer to Miss Marguerite Lewis of Ottumwa.

Dr. W. H. Elmer of Davenport to Lenora Crompton of Quebec.

Dr. B. L. Knight of Kenwood Park to Miss Florence McCollister of Iowa City.

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## IOWA MEDICAL MEN IN THE SERVICE

To Camp Grant, Ill., base hospital, from Camp Dix, Capt. E. D. McClean, Oskaloosa.

To Carlisle, Pa., from Camp Dodge, Col. H. D. Bloombergh.

To Fort Des Moines, Iowa, from Camp Dix, Lieut. C. S. Felt, New Providence.

To Fort Ontario, N. Y., from Camp Dix, Capt. A. Negus, Keswick.

To Fort Sam Houston, Texas, base hospital, from Camp Dix, Lieut. R. C. Jackson, Independence.

To Fort Sheridan, Ill., from Fort McHenry, Capt. M. B. Dunning, Conway.

To report to the commanding general, Panama Canal Department, from Camp Dodge, Capt. F. S. Matlack.

To Camp Gordon, Ga., from Camp Pike, Major E. E. Hobby, Iowa City.

To Fort Des Moines, Iowa, from Camp Dodge, Capt. L. M. Coffey, Keokuk.

To Fort Sheridan, Ill., from Camp Dodge, Major F. L. Love, Iowa City.

To Newport News, Va., from Camp Jackson, Capt. C. H. Kinnaman, Keokuk.

To Otisville, N. Y., from Camp Dix, Capt. J. A. Matson, Purdy.

### BOOK REVIEWS

#### THE SURGICAL CLINICS OF CHICAGO

April Number, Vol. III, No. 2, with 63 Illustrations. Published Bi-Monthly, W. B. Saunders Co. Price Per Year \$10.

This number contains 242 pages of surgical clinics of a considerable number of the best known surgeons of Chicago. Dr. A. J. Ochsner presents a clinic including several subjects; fracture of the humerus, fracture of the patella and double hare lip. Dr. Franklin B. McCarthy gives an interesting clinic on fracture of the carpal scaphoid. This clinic should be specially mentioned because the condition may be overlooked and be considered as a sprain. Dr. Arthur Dean Bevan reviews the clinical aspects of appendicitis in an interesting lecture.

Dr. Thomas J. Watkins presents an operation for constriction at the vaginal orifice and for vaginismus. This number of clinics is of unusual interest because of the large amount of valuable surgical material presented by leaders in surgery.

#### THE HIGHER ASPECTS OF NURSING

By Gertrude Harding. Twelve Mo. of 310 Pages. W. B. Saunders Company, 1919. Cloth \$2.00 Net.

This interesting book is devoted to a study of the temptations and disappointments of nurses; the causes of failure, partly growing out of mistakes of motive and inadequate training. Facts are recorded here more or less familiar to the conscientious and observing physician. We cannot enter upon a detailed account of the experiences and observations Miss Harding sets forth in her book, the outgrowth of long contact with nurses and their work.

The position of the trained nurse is extremely difficult. Her peculiar relations to patients and to the public, gives her a peculiar outlook on life and leads to the danger of a relaxation of self-control and lowering of ideas. Any manifestations of selfishness, vanity, or commercialism, are soon noted by the public and when once a suspicion of loss of interest in her work or hint of immorality leads to loss of employment and a consequent disappointment. We would suggest that every prospective nurse read this book and study it carefully during her training period, and even when she goes out to private employment that she may fortify herself against the temptations that lie in her way.

#### TRAINING SCHOOL METHODS FOR INSTITUTIONAL NURSES

By Charlotte A. Aikens, Formerly Director of Sibley Memorial Hospital, Washington, D. C.; Formerly Superintendent of Iowa

Methodist Hospital at Des Moines and of Columbia Hospital, Pittsburg. Author of Several Important Books on Nursing. W. B. Saunders Company. Price \$2.25 Net.

Miss Aikens has become one of the recognized authorities on the various phases of hospital administration and her long experience especially fits her to pass on questions of hospital and nurse training. In this book Miss Aikens passes in review the various features of the training of nurses. First the task the training school assumes in providing for the education of nurses; the character of material admitted as pupils; the observations to be made during the probation period; the course of study and training; methods of teaching; teachers and so forth.

The author considers the fitness of those who may be selected as heads of different services; the character of bedside instruction; the keeping of records. Miss Aikens brings out in strong contrast the value of institutional educational training as against the empirical and hap-hazard methods employed in many hospitals where the largest part of nurse training consists of menial housework. She does not indulge in criticism but rather dwells on construction methods of training nurses for the higher services and institutional purposes. Some attention is given the short intensive courses which are now receiving attention at the hands of physicians who recognize the difficulty of securing nurses for ordinary work in families who are unable to bear the expense of the high price nurses who have in such measure lost sight of humanitarian needs and have so often placed their services on high commercial basis. The book is of high merit and is a distinct contribution to the training nurses.

#### PROGRESSIVE MEDICINE

A Quarterly Digest of Advanced Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M.D. Professor of Therapeutics, Materia Medica and Diagnosis in the Jefferson Medical College, Philadelphia. Assisted by Leighton E. Appleman, M.D. Lea & Febiger, Philadelphia and New York. June, 1919. Price \$6 Per Annum.

Dr. William B. Coley reviews a series of eight thousand nine hundred eighty-five cases of hernia operated upon at the Hospital for Ruptured and Crippled, New York, with especial reference to end results. In these statistics all accredited types of operation are considered. Several operative procedures bearing particular names are referred to involving the same principle brought out by Bassini in the flap forming operation. The special features of these methods are described.

It seems a little difficult to find anything new to be said about hernia, however a large series of cases in the hands of master surgeons present something interesting as regards end results.

Dr. Abraham O. Wilensky reviews the literature  
(Continued on Adv. Page xvi)

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## BOOK REVIEWS

(Continued from Page 332)

on abdominal surgery, military and civil. John G. Clark of Philadelphia furnishes a digest of recent literature on gynecology and Dr. Elmer H. Fink on disorders of nutrition and metabolism and the glands of internal secretive blood and spleen. Dr. William B. Hardy on ophthalmology reviews the literature on this specialty.

## DIET IN HEALTH AND DISEASE

By Julius Friedenwald, M.D., Professor of Gastro-Enterology in the University of Maryland and School of Medicine and College of Physicians and Surgeons, Baltimore and John Ruhrah, M.D., Professor of Diseases of Children in the University of Maryland School of Medicine and College of Physicians and Surgeons, Baltimore. Fifth Edition, Reset, of 919 Pages. W. B. Saunders Co., 1919.

Diet and nutrition has come to be regarded as subjects of the first importance in medicine. Many books have been written and much journal literature has appeared on dietary in the management of disease and while the authors do not claim to have included all that is of value in this book, it has been their aim to present the main features of a dietary to be considered both in health and in disease. After considering briefly the physiology and chemistry of digestion and of metabolism, classes of food are considered including beverages and stimulant; then the preparation of food, artificial and proprietary foods. A consideration is given of diets for and during certain employments, training, and so forth.

Infant feeding comes in for a somewhat exhaustive consideration. Diets for different conditions as in pregnancy and old age. Many tables are given and formula for combinations of food in certain conditions and in disease. To make the book as useful as possible a general consideration of diet for the sick is given followed by questions of feeding in special forms of disease and carefully thought out combinations of food bearing certain names. By consulting these combinations the physician who has but little time or opportunity to study dietary will find at hand the most approved forms of diet for certain

forms of disease that are known to be influenced by special diets. It is to be presumed that the trained physician will exercise discriminating judgment in directing a diet for his patient, yet he will find here helpful aid and suggestion.

## MANUAL OF EXERCISES FOR THE CORRECTION OF SPEECH DISORDERS

By May Kirk Scripture, B.A., and Eugene Jackson, B.A., New York City. F. A. Davis Co. Publishers. Price \$2.

In this manual of two hundred thirty-six pages, the authors state that they have carried out in practical exercises the methods of correction of speech disorders used in their clinics.

The first twenty-two pages are given over to the introduction which in a brief and concise manner discusses the need of drill on the particular consonants that give lisps trouble, but also on all sounds especially the vowels. That lisps will be benefitted as much as stutterers by the exercises as given in the book. They have divided the speech mechanism into; breathing, phonation, articulation, thinking, and provided exercises for each as well as the proper co-ordination of the four. Pages twenty-two to two hundred twelve are divided into fifty lessons each containing detailed exercises to be followed by the student. These are made very easy for both student and teacher. The last twenty pages take up a detailed description of the sounds used in English.

If we were to offer adverse criticism, it would deal with the fact that the authors use the same methods and exercises for the correction of all forms of stuttering regardless of their etiological and pathogenic differences. The treatment of stuttering is one of the most difficult tasks in the cure of lingual disturbances and cannot be successfully undertaken except by drawing upon the resources of the entire medical art. Teachers and school physicians should have a certain knowledge of the psychology, and pathology of speech, in order to be able to correctly advise the parents and to impart the lessons in a way calculated to remove the defects or prevent their occurrence.

This manual can be highly recommended to all teachers, school physicians, laryngologists, and others interested in the correction of speech disorders.

E. P. Weil.

## NERVOUS AND MENTAL DISEASES

DR. TOM BENTLEY THROCKMORTON

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## ENCEPHALITIS LETHARGICA\*

GEO. W. KOCH, M.D., Sioux City

In reporting the epidemic of an obscure disease in Austria in 1916-1917, Von Economo coined a term "Encephalitis Lethargica." But epidemic encephalitis seems the better term since the former combines the clinical and anatomical features of the disease. It would perhaps be better to avoid the term "sleeping sickness" as it has become so intimately associated with the epidemic, "Trypanosomiasis" of Africa (Bassoe).

In 1890 in northern Italy and Austria following an epidemic of influenza, cases of this type were reported under the term "Nona" and with the subsidence of the disease the term was soon forgotten.

Dr. C. K. Mills of Philadelphia, in reporting nervous manifestations of influenza, following the epidemic of 1890, cites some cases resembling very closely the present epidemic of encephalitis, the prominent manifestation of which, were somnolence and ocular palsies.

In 1712, a similar disease was reported in Germany under the term "Tubingen sleeping sickness."

When the disease first made its appearance in England during the winter and spring of 1918, it was first thought to be botulism, since the drastic food measures made necessary on account of the war helped to focus the attention to possible disturbances along that source. However, in none of these cases could the bacillus of botulism be found and many of these cases were febrile which is not the case in botulism. Also, autopsy reports showed definite inflammatory lesions of the brain. It was then thought to be an atypical form of poliomyelitis. This however, was not definitely proven since these cases show very little change in the spinal fluid; while in poliomyelitis the spinal fluid usually shows rather characteristic changes. Also the cases were invariably reported from different localities and there was never more than one case in a household, except in one

instance. Poliomyelitis is usually more prevalent during the summer and autumn months, while encephalitis lethargica seems to be more prevalent during the winter and spring months.

In previous editorial discussions of the European, especially the English, reports on lethargic encephalitis, special emphasis was placed on its similarity to the cerebral and bulbar forms of epidemic poliomyelitis, and it was suggested that further investigation might show "the new disease" to be true epidemic poliomyelitis. In the meantime, the report of an extensive collective investigation of lethargic-encephalitis (168 cases), has appeared from which we learn that while nothing by way of a casual agent has been demonstrated, intracerebral inoculations of monkeys with emulsions of diseased nervous tissue failed completely to produce any results. As the monkey is readily susceptible to such treatment with similar material from cases of epidemic poliomyelitis, the present indications are that the two diseases are separate and distinct, and this conclusion is borne out also by certain clinical and epidemiologic differences to which attention has been called by Netter, in Paris, especially.—(Editorial J. A. M. A., 72—March 15, 1919.)

"Netter insists that the disease cannot be a form of poliomyelitis, stating that this epidemic occurred during the winter and spring months, while poliomyelitis occurs almost always in the autumn; that the majority of persons affected were adults, while poliomyelitis affects mostly children, and that the spinal fluid was normal, which is not the case in poliomyelitis. In the present epidemic there were also few meningeal symptoms, and the mortality was very high, 50 per cent. In poliomyelitis the meningeal symptoms are much more marked, and the mortality is much lower about 11 per cent.—Editorial J. A. M. A. 71.

A striking feature of the present epidemic and previous epidemics is that it very closely followed the epidemic of influenza. It is also true that a very few of the patients give a definite clinical history of influenza, this brings forth the belief that it is very closely associated with influenza

\*Address by the Chairman of the Section of Internal Medicine  
Iowa State Medical Society, May, 1919, Des Moines.

and may be caused by it. The conclusion is drawn that the majority of people who do not suffer an attack of influenza during an epidemic acquire a temporary immunity; but that does not necessarily mean that the virus of influenza may not after some time cause the changes in the brain observed in encephalitis lethargica.

Bassoe, in a recent article, states that the encephalitis may be a cerebral form of influenza or it may be caused by a separate virus which in order to become active must at some time or another have come in contact with influenza. He is also impressed with the fact that nearly all the cases which he has seen were in a more or less run down or exhausted condition prior to the onset; which condition may have predisposed to a localization of the virus in the brain. In brief the evidence now available suggests that in the present epidemic we are dealing with a form of infection akin no doubt to the virus of poliomyelitis but not identical with it.

In discussing the nature of the disease, Sainton says, he does not believe that this is a new disease. He, too, identifies it with the "Nona" described during the great influenza epidemic of 1890 and considers it very significant that the disease has re-appeared during a new pandemic of influenza. Although admitting that the positive evidence, especially of a bacteriological nature, is lacking, he is inclined to look upon lethargic encephalitis as a special variety of influenza. ("Bassoe Nervous and Mental Diseases, Practical Med. Series.")

*Pathology*—The changes found in the brain are those of a more or less diffuse encephalitis, more frequently found in the brain stem, the regio-subthalamica, the neighborhood of the third ventricle and iter, and mesencephalon. There is more or less edema and congestion or hyperemia. The meninges are very little affected. Microscopically, the meninges usually show a patchy diffuse thickening of the "leptomeninges, with scattered cellular exudates or with vascular congestion and perivascular cellular infiltrates composed of lymphocytic, polymorpho-nuclear and plasma cells." Throughout the cerebral substance, the grey matter of the cortex, the basal ganglia, the mesencephalon pons and cerebellum may be found considerable peri-vascular infiltration especially about the veins.

There is little evidence of necrosis or extensive tissue destruction, in which respects this disease differs from poliomyelitis.

Porthier, Camp Lee, Virginia, reports eight cases with one death, the necropsy of which are as follows:

"On section of the hemispheres, the centrum ovale presented dilatation of the blood-vessels,

which appeared as small, punctate bodies throughout the surface. On inspection, the corpus callosum appeared normal: but on attempt to section, it was found to be soft and mushy. All the tissues of the lateral centrals were soft. The optic thalamus was softened. The velum interpositum and the chorioid plexus presented the same condition as the vessels of the brain; that is, the vessels were prominent, tortuous and arborescent. There was an excess of fluid in the ventricles, but all the tissues surrounding them were softened, the brain substance as well as the tissues of the floor. The third ventricle presented nothing of note except general softening of the tissues of the floor. The pineal gland was swollen. The iter a tertio ad quartum was patulous. On section of the basal ganglions a small hemorrhagic spot was found in the right hemisphere immediately adjoining the internal capsule. This spot was about 1 m.m. in diameter. On the left side, the basal ganglions presented nothing of note. There was however, a universal softening of the brain tissues which made it very hard to section without destroying it in the attempt. After sectioning the organ apparently collapsed, and there was no possibility of returning the sectioned portion back to the former relation on account of this softening."

Bassoe reports the necropsy findings of two cases. In one held eleven hours after death of a woman in the seventh month of pregnancy a marked edema and hyperemia of the lungs was found, hyperemia and cloudy swelling of the heart muscles, liver and kidneys and marked generalized cyanosis. In both the mother and fetus were extensive petechial hemorrhages in the visceral pleura, the epicardium, the renal pelvis, the urinary bladder and the stomach. The other cases examined four hours after death showed the same heart, liver and kidney findings, plus hyperemia of the spleen, the pericardium, the lining of the stomach and renal pelvis, moderate reddening of the lining of the trachea and main bronchi, atheromatous patches in the lining of the abdominal portion of the aorta and small crepts of the left ovary.

In both cases the brain showed rather marked congestion and edema; though no particular necrosis was found.

In the first case in the white matter of the left frontal lobe, the vessels were markedly distended, especially the veins. In one of the congested vessels a small vein cut longitudinally, a fresh thrombus was found consisting of shadows of red blood cells and leucocytes. The left optic thalamus and right corpus striatum showed extensive inflammation and large collections of monoleucular cells

about the distended blood-vessels. In the pons, inflammatory changes and numerous small hemorrhages were found. In the other brain the meninges were hyperemic, the brain itself being edematous and hyperemic; especially in the region of the basal ganglion, the pons and the subththalmic region being most affected.

Through the dorsal portion of the pons and less through the mid-brain and basal ganglion there was intense congestion, hemorrhagic areas and peri-vascular infiltrations. Sections stained by the Gram Weigert, method revealed no bacteria.

No age is entirely exempt, sex and occupation play no part.

The onset is usually acute, the disease being fully established within a few days. Occasionally the disease is ushered in with more severe symptoms as apathy, lethargy, drowsiness, stupor and absence of initiative or spontaneity soon making their appearance. Other early symptoms are disturbances of vision, dimness, and diplopia, ophthalmoplegia, or paralysis of the ocular motor nerves, drooping of the eyelids. The pupils may be either dilated or contracted. There may be unilateral or bilateral paralysis of the facial muscles. The somnolence which is so prominent a symptom in most of the cases may not develop until later in the disease, and may not be present at all as was the case of one of the patients recently seen. In many cases a striking feature is the rigidity of the muscles of the neck, back and limbs and a peculiar cataleptic state. A limb placed in any position may be held there for several minutes. The patient usually responds promptly to commands and questions. Bassoe remarking on this symptom, suggests that it is worthy of further study. When first seen the rigidity may resemble that of meningitis closely; however, Kernig's sign is absent as a rule or not well marked.

Marked twitching may be noted and on standing the patient may show a peculiar bending forward of the body with twitching of the face and limbs, and the gait may be ataxic, closely resembling Parkinson's disease. Attention to this was recently called by Bassoe and Ely. There may be tingling and numbness of the hands and feet.

Constipation and incontinence of the urine, especially the latter is frequently noted.

The temperature is frequently more or less normal throughout the course of the disease.

In more severe cases, there may be a moderate rise in the beginning and in the fatal cases the temperature may be progressively high and irregular. Pulse is usually not rapid.

The spinal fluid as a rule shows very little change. The cell count rarely increases. No

bacteria have been found. The fluid may be under slight pressure. There may be slight relief from some of the symptoms after lumbar puncture as was the case in patients seen by Ely and Williams. There is frequently observed very slight leucocytosis, rarely above 10,000.

The disease may subside within a few days or it may run an indefinite course from a few weeks to three months. In this country the mortality apparently has not been so high as in England and France. In France the mortality has been reported much higher; in some instances as much as 50 per cent.

No special treatment except rest has been prescribed.

#### REPORT OF CASES

**Case 1**—A young man past thirty years of age, seen in March, 1919, with Dr. Hess of Wayne, Nebraska. The patient had been working hard all winter. He had never been seriously ill and not had influenza, though some of the members of the family had been recently ill with the disease. About ten days after he was seen while helping a neighbor shell corn, he was suddenly taken ill with a severe headache, severe pain in the back of his neck and complained of a sore throat. These symptoms continued until about the tenth day, when he lapsed into a state of stupor, from which he could easily be aroused, answering questions intelligently but slowly with scanning speech. He would readily take food and water immediately lapsing into a state of stupor. His face was expressionless, he opened his eyes very slowly, pupils were slightly dilated but reacted slowly to light and accommodation; there seemed to be no diplopia. The pharynx was red and congested, there was a slight temperature usually 99 degrees; at one time it was 101 degrees per rectum; the pulse was always below 100. The muscles were rigid and he would hold a limb in the position in which it was placed. However when he was aroused there was no rigidity. The knee jerks were slightly retarded but otherwise normal, no Kernig or retraction of the head was present. During the night time he was more restless and slightly delirious. He also complained of considerable pain in the right knee but no tenderness or swelling could be elicited. Fifteen c.c. of clear spinal fluid was withdrawn which was under very slight pressure. The cell count was normal, no bacteria were found; about a week later, a second spinal puncture was made by another physician and the same findings observed. The white corpuscles were 7500; he was constipated and the urinary findings were normal. He remained in this state for about two weeks and then made gradual improvement until the end of six weeks, when he was able to be up and around, though still complained of being sleepy during the day time. At the present time he has practically recovered.

**Case 2**—This patient was first seen on March 4, 1919, in consultation with Dr. A. M. Warren in Sioux City, Iowa. The patient is a young married woman

twenty-seven years of age. In the early part of November, 1918, her husband was seriously ill with influenza. Within two weeks she was taken ill with symptoms of a mild attack of influenza. She did not gain strength and a slight pharyngitis and slight tonsillitis persisted until the latter part of January. On the eighteenth of December, she felt so weak that she was required to go to bed and remain there until Christmas day. During this time she had a slight paralysis of the left side of her face and had considerable dimness of vision, also there was considerable numbness of her legs to above the knees, this improved considerably during January and then became worse again.

The facial paralysis improved and disappeared entirely in about two weeks. The blindness or dimness of vision became more marked and during January and February she had a great deal of difficulty with diplopia. During February she experienced considerable difficulty in getting around because she felt so weak, and experienced considerable difficulty in walking because of the numbness and weakness of her lower limbs.

When first seen she presented the following symptoms; some loss of weight, and considerable loss of strength, considerable vertigo, inability to maintain her balance in walking, dimness of vision and diplopia. The dimness being so marked that she was unable at times to recognize objects and people near her. Occasional attacks of vomiting, this being accounted for by the fact that she was three months pregnant. The pupils reacted normally to the light and accommodation. There was no facial paralysis present. She complained of marked numbness and tingling in her feet. The tendon reflexes were practically normal being only slightly retarded. At no time had there been any stupor though she did sleep a great deal. There were times when she had some incontinence of the urine. At times a trace of albumin was found. When asked to get up and walk around she walked with ataxic gait, and had to be helped. The blood count W. B. C. 10,500 red cells 4,000,000 H.b.g. C. 80 per cent. No spinal puncture was made, temperature and pulse were normal. She was put to bed and hot dry heat applied to her limbs. After a period of six weeks in bed the diplopia and ataxic and weakness had disappeared. The numbness and tingling had disappeared in her hands and persisted but slightly in her feet.

**Case 3**—Cases seen by Dr. E. M. Williams. Dr. E. M. Williams, Sioux City, Iowa, reports the case of a girl, age fourteen, seen in consultation with Dr. Gross, of Yankton, Dakota, in March, 1919. Two weeks previously, she became drowsy and gradually becoming more somnolent. One day had slight divergence of one eye which was not noticeable at examination the next day.

Examination—Expressionless appearance of face giving the appearance of a case of paralysis agitans. The patient did not seem to even have voluntary control of facial muscles. The ocular muscles, and pupils were normal. There was a general and well

marked state of catalepsy so that the hands, arms, or legs were held for a considerable period in whatever position they were placed. Even when the tongue was protruded, it was held in such a position for a minute or two. In drinking the first swallow or two would be all right, then the water would regurgitate through the nose.

One of the principle symptoms complained of, was a severe trembling and shaking of the legs and body and this was more prominent than usual during the examination. The knee jerks were very active with some slight clonus; ankle jerks also very active, reflexes normal. No sensory changes. The spinal fluid was under considerable pressure and 30 c.c. was removed. Sugar was present, no appreciable quantity of globulin and about 10 cells.

Six days later, patient was better, not somnolent, smiled, moved face freely and talked clearly. Complained of slight pain and stiffness in legs; slight degree of catalepsy. Knee jerks and ankle jerks very active, reflexes normal.

**Case 4**—A child, age six, seen in consultation with Dr. Fettes of Le Mars, Iowa. When first seen the patient had left abducens paralysis; a few days later ataxia of legs with tendency to wander toward the right and several times fell towards the left. Vomiting of projected type for a day and night, then somnolence from which he could be aroused for a short period and during such times would talk rationally.

Examination—Before arousing him revealed a peculiar spastic condition of right hand, arm and leg with marked dorsal extension of the great toe; this becoming more marked when striking the sole of the foot. The spasticity disappeared when the patient was awakened. The knee jerk and ankle jerk, however, remained more active than the left, there being a partial ankle clonus on the right. The reflexes of the right leg were also very active. The pupils and fundi were normal. There was conjugate deviation of eyes to the right, to some slight extent, also of the head. The eyes could not be turned toward the left at all. The facial muscles and tongue did not show any involvement. Spinal fluid under considerable pressure, clear with only about eight cells to the c.m.

At present, a couple of months later, the report of the child's condition states that there is still a conjugate deviation of the eyes, some spastic impairment of the muscles of the arm and leg, a left facial paralysis of the peripheral or central nuclear type and a slight defect in articulation.

**Case 5**—A child, age four, seen in consultation with Dr. A. M. Warren of Sioux City, Iowa. A week previous the patient had a slight cold and temperature of 100 degrees for a couple of days. Apparently made a complete recovery. In the morning, a few days later, the parents noticed that the child seemed rather clumsy in walking. This gradually increased and by the end of the day the child could scarcely walk at all and the arms had become affected to some extent. The next day there also

seemed to be something wrong with the child's eyes. Examination showed pupils equal and responding normally. There was slight weakness of the left abducens and paralysis of the right abducens. Face muscles and tongue were normal. Swallowing was normal. The child had an uncertain, wobbly and ataxic gait of cerebellar type and used her hands very clumsily. Talked very little and indistinctly. Knee jerks absent, plantars normal, ankle jerks normal. No temperature, pulse 90. No laboratory tests made. Child not really sick or confined to bed at any time.

In reviewing these cases we find that three patients are children, two adults. None of these cases lived in the same locality. Two of them were in Sioux City, about ten miles apart, the others at least fifty miles apart. In talking with some of the men here yesterday, who have seen a number of these patients, I learned that none of their cases had been in the same locality with others suffering with the disease. All presented the same general symptoms. Some of them have exhibited the somnolence or lethargy, some have this particular cataleptic state. A peculiar feature is that they are easily aroused from the somnolence, which is not a true coma, and when awake the rigidity usually disappears.

If we have the same experience the English observers have had, we shall expect another appearance of this disease next winter and spring.

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## RECOGNITION AND TREATMENT OF LABOR INJURIES\*

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Lacerations of the uterus, the lower uterine segment, the cervix, the vagina, the uro-genital septum, the perineum, the vulva and other adjacent structures occur as a result of labor. No one has yet been able to conduct many deliveries without having experienced one or more of these unsatisfactory, and, to a certain degree, unavoidable end results.

Modern surgery, particularly of the abdominal cavity owes much to the gynecologists and obstetricians, and in the last few years we have become more and more inclined to recognize obstetrics as a surgical specialty. Many have been and some still are reluctant in acknowledging this, but the obstetric teachers and other leaders in this branch of practice are constantly voicing the need for more and better training in obstetric technic particularly along the line of operative obstetrics.

Why this apparent lack of progress and indifference to obstetric advance as compared to surgery and other special fields of medicine? It is because surgery as a specialty is only practiced in civilized, enlightened and organized communities while labor takes place wherever human beings are found. In the past the woman has gotten on somehow, the race has multiplied, and the people have looked upon the disability of the mother as a natural result of child bearing, and some have been contented to thus go on, but now with the modern hospital available to such a large proportion of our people, the opportunity to carry out modern obstetric technic has given a great impetus to the practice of obstetrics and been of great educational value to the people. Because of this we today have two standards of obstetric technic: that carried out in the hospital and that practiced in the home. It is our present duty to make our hospitals realize that a labor case must receive care equal to that accorded to a surgical patient, in regard to operating room service and after treatment, and we must perfect our technic in the home so that it is as nearly that of the hospital as existing conditions will permit. When this has been done, and not before, can we recognize and properly treat surgically the injuries incident to labor.

Inasmuch as all primiparæ and a large number of multiparæ, providing they have been properly cared for following their previous labors, suffer from injuries of the parturient canal, we must realize that our work is only partly done when the child and placenta are delivered. We cease being obstetricians in the smallest sense and become obstetric surgeons and conduct our examination and treatment of labor injuries to the best of our ability in keeping with our surroundings.

In hospital practice we must have good light, a suitable delivery bed, or table, an anesthetist, a clean nurse with one nurse to wait on her, and a nurse or a doctor, scrubbed up to assist the operator. The same supplies and instruments required for a secondary repair of the perineum should be at hand. Anything short of the above constitutes neglect to the patient and is an imposition on the doctor. After changing gown and gloves used in

\*Presented to the Sixty-Eighth Annual Session, Iowa State Medical Society, May 7, 8, 9, 1919, Des Moines.

the delivery, we are ready to proceed with our examination. Following all versions, forceps and other operations where intra-uterine manipulations have been done, a thorough intra-uterine palpation is made to ascertain if uterine laceration or rupture has occurred. In all other cases normal or otherwise, the assistant pushes down on the fundus, two broad speculæ are inserted, the cervix is grasped with a DeLee cervix forceps and inspected as is also the upper part of the vagina. Then the assistant releases the pressure on the fundus, but still guards it, a gauze pack is placed against the cervix to dam back the blood from above and a thorough inspection of the lower vagina, sub-pubic region and perineum is made. If this technic is followed out no injury should escape our notice. In home practice few cases calling for the graver forms of operative delivery occur, nowadays, where time prevents the doctor from securing one or more physicians to assist. In such cases the doctor can nearly reduplicate the technic as used in the hospital. The doctor alone in the home having delivered a normal case, should terminate the third stage and then make a change of gloves and under proper light (he should carry a large flash light in his bag) examine the lower part of the vagina, the vulva and perineum. Unless there is bleeding from a cervical tear the cervix is probably best left alone. If in this examination, he finds anything but the slightest laceration, he should call at once or within the next twenty-four hours, an anesthetist and if possible an assistant and a repair be made under the most favorable circumstances obtainable in the home.

The nature and extent of the injury having been determined, what treatment shall be applied? In lacerations of the uterus replace the intestines, give ergot intra-muscularly, pull down the cervix, pack the uterus, give morphia and apply ice bag to lower abdomen, or if extensive a laparotomy may be necessary with suture of the uterus or hysterectomy. Lacerations of the cervix are repaired by interrupted No. 2 chromic cat gut. With a pack in the lower uterine segment it is easy enough to coapt the torn margins, be they longitudinal or circular twisting tears, and the chances of closing the cervix too tight are negligible. With the repair of the cervical tear the lacerations of the upper vagina are also coapted, if not, they may be sutured with a running suture, or are so slight they will heal if left alone. The lateral lacerations lower down in the vagina made by the blades of the forceps or extensions upward from the perineal tear and those above at the base and side of the bladder should be exposed and carefully sutured with the twenty day gut. Good

results in these cases are obtained. Laceration of the vulva above about the urethra and clitoris bleed freely and a plain cat gut purse string stops the hemorrhage while a continuous plain gut suture should close the rent. The same may be said of tears into the varicose veins in the labia. Tears of the frenulum should be carefully coapted. In dealing with lacerations of the perineum of mild or severe grade we have only to bring the injured structures together in their proper relations and positions. This is accomplished by deep buried chromic cat gut which restores the perineum and injured muscles so that they functionate properly. The mucus membrane of the lower vagina should be carefully coapted by over and over chromic cat gut, or better a submucous suture. The skin of the perineum is closed by subcutaneous suture, and care should be taken to carefully close the frenulum up to the remains of the hymen, so there is no gaping of the vagina with the mucus membrane exposed. I have not found it necessary to use non-absorbable suture material and believe that the continuation of the use of silk worm gut is unwarranted and only a relic of the past.

In closing:

1. Have your patients understand, as many intelligent women now do, that there will be some injury following labor, but that you will endeavor to conduct the labor so as to reduce that injury to a minimum, and that you will repair or have repaired immediately whatever damage there may be done.

2. The contra-indication for immediate repair is known infection. Conduct labor by abdominal palpation and rectal examination for diagnosis and determination of the progress of the presenting part, and the possibility of infection by the inspection for labor injuries will be reduced to a minimum. The old teaching, based on fear of infection, not to examine the patient following delivery except for the most urgent cause does not hold if the above method of conducting labor is employed.

3. Every doctor caring for obstetrical cases should have a good large clean bag, made of cheap material, so it can be frequently replaced, with all necessary articles for delivery and repair at all times.

4. Not to do a primary repair is a great economic loss. Now that our results are so uniformly good, a secondary repair seldom is necessary, and the woman is saved four weeks in time and from one to three hundred dollars in money, by prompt repair of her injuries. I speak of time and money for nearly everyone understands what they mean and the impression is more lasting than

if I were to speak of the dread of a secondary operation, the added pain, the risk of suffering from sub-involution and later of uterine displacement, prolapsus, chronic infections of the vagina, uterus and bladder.

5. There will be still in spite of our attempted immediate repair some secondary perineorrhaphys to do. For we will have submucus tears and general relaxations which offer nothing for suture at the time of delivery, which must be repaired six to eight months or years later. In making a gynecological examination some time after delivery and finding a relaxed perineum with a gaping vagina and bulging anterior vaginal wall, don't startle the woman by telling her she was lacerated and neglected, there was probably no break in the mucus membrane or skin at the time of her delivery as her doctor told her, but muscular separation and detachment took place which will require an extensive repair.

6. And here at last is a great opportunity for the doctor, the fellow who works hard, loses sleep and you know the rest of his complaints, if he would only look carefully and find his lacerations, admit them, learn to do a repair and do it, he could charge more for his services, save his patient suffering, time and money,\* and thus help raise the standard of obstetrics to the place it deserves.

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### GASTRIC ULCER FROM THE STAND- POINT OF THE GENERAL PRACTI- TIONER\*

CHAS. W. SANDERS, M.D., Northwood

The first effort to establish scientific knowledge of the stomach and its functions began in 1752 by Reaumur and about thirty years later was greatly augmented by Spallanzani. This determined the fact that chemical processes rather than mechanical, transformed food into the digested or necessary state to maintain life and development.

The next step was the work of the American military surgeon, William Beaumont, with the famous patient, Alexis St. Martin. The investigations of Beaumont constitute what may justly be designated as the most epoch making research in the physiology of the human stomach. From this time achievements have been so great and rapid that the average student has been obliged to hurry to even keep in sight of the latest.

In this, however, we must be brief and within

the bounds of well ascertained facts, rather than speculate on theories, however alluring.

In considering this subject, we need to know:

First—How the stomach works under healthy conditions; what are its normal performances, and

Second—How its abnormal conditions are brought about, how its diseases are manifested, and what are the best means of avoiding or curing them.

In caring for patients with gastric ulcers, the general practitioner has many handicaps—he sees the patient when trouble is just beginning and even though treatment and diagnosis are right, the patient, who is soon relieved, becomes careless and discontinues treatment until relapse brings him back, or, if the case is persistent and does not improve rapidly, the practitioner has to wait until all the fads and frauds have been tried, then, if he is still living, he may be induced to submit to rational treatment. The most dangerous as well as the most humiliating handicap is that you can relieve and many times really improve these cases, then they discontinue treatment with the idea that you desire to continue treatment for your own personal benefit, or are “working them” for an operation.

As a basis of this article, I have a record of forty-one cases which I have kept track of from five to twenty-eight years. From these I have selected five which serve as fair classification of the entire list:

A. H. C.—Age forty-two, male, farmer. Complained at first only of pain and flatulency—later more pain, vomiting, hematemesis, constipation marked—during this time three periods of improvement occurred in which he seemed quite well, the longest was two years. At the age of sixty-four, this patient submitted to operation—two active ulcers found, many cicatrices also, gall-bladder was drained and seven large gall-stones removed. Patient still lives, nearly one year after operation, but is not well, is feeble and anemic.

E. A.—Age thirty-one, male, farmer. Complained from first of severe pain and vomiting—hematemesis slight, only occurring three or four times during period of five years. This patient always did well when treatment was strictly adhered to, but quickly relapsed when left to himself. Constipation was very marked, habits vigorous, worked hard and appeared well nourished. At the age of thirty-six was taken suddenly with severe pain and vomiting and positive shock, with collapse, and died before a surgeon was secured. Post mortem showed large perforation one and one-half inches above the pylorus.

N. L.—Age twenty-seven, female, domestic. Complained of burning in stomach. Not much appetite and was weak and poorly nourished. The treatment

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\*Presented to the Sixty-Eighth Annual Session, Iowa State Medical Society, May 7, 8, 9, 1919, Des Moines.

used relieved burning, but otherwise no benefit. At the age of thirty-six, suddenly died. Post mortem showed perforation.

R. H. L.—Age thirty-eight, female, housewife. Complained of pain only when stomach was empty and was always relieved by eating neutral food—would have periods of improvement only to relapse—of a very nervous temperament. At the age of forty-one, patient was taken suddenly ill, with great pain in epigastrium and marked evidence of shock. Diagnosis: perforation. Operation offered, but refused. Patient was kept on her back for eight days—nothing taken by the stomach except small quantities of water during last three days. The patient recovered, and examination by x-ray later confirmed diagnosis of perforation by the cicatrix shadow. It was the opinion that the perforation was posterior and small. Patient now has been in very good health for nearly two years.

A. G.—Age thirty-six, female, housewife—Had large family. Began with flatulency and constipation. Symptoms increased with pain, vomiting and last hematemesis quite profuse. At the age of forty-three was operated and made a good recovery.

Of the above cited forty-one cases, eleven have died within seven years of observation, four as direct result of perforation, pneumonia and nephritis as inter-current diseases, about equal in the remainder. Fourteen have submitted to operations of which none have died, five complicated by gall-stones, two floating kidney. Seventeen have been greatly benefitted by correct attention to teeth and throat.

I want to say here that your humble servant twenty years ago condemned the practice of devitalizing teeth and filling with amalgam, and was severely criticized.

To conclude—As practitioners, can we not have a more certain line of action in managing these cases? The surgeon has his lines fixed and is successful—why not internal medicine? I wish, here, to give credit due to those who have so ably assisted: Dr. E. H. Dwelle and Dr. L. G. Hewitt, Park Hospital, Mason City, and University Hospital, Iowa City, and the Mayo Clinic, Rochester, Minnesota.

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## HOSPITALS OF THE 42ND DIVISION

Neuenahr, Germany, March 5, 1919

Pursuant to war department instructions covering the formation of the 42nd Division, and the assembling of its various component units, preparatory to its embarkation for overseas service, August 15, 1917, found the Field Hospital Section, 117th Sanitary Train, represented at Camp Mills, Garden City, Long Island, N. Y., by its

first contingent, Field Hospital Company, No. 165, formerly Field Hospital Company No. 1, National Guard, Oregon. On September 8, Field Hospital Company, No. 166, formerly Field Hospital Company No. 1, National Guard, Nebraska, arrived, and with the arrival of Field Hospital Company, No. 168, formerly, Field Hospital Company, No. 1, National Guard, Colorado, on September 12, the section was completed.

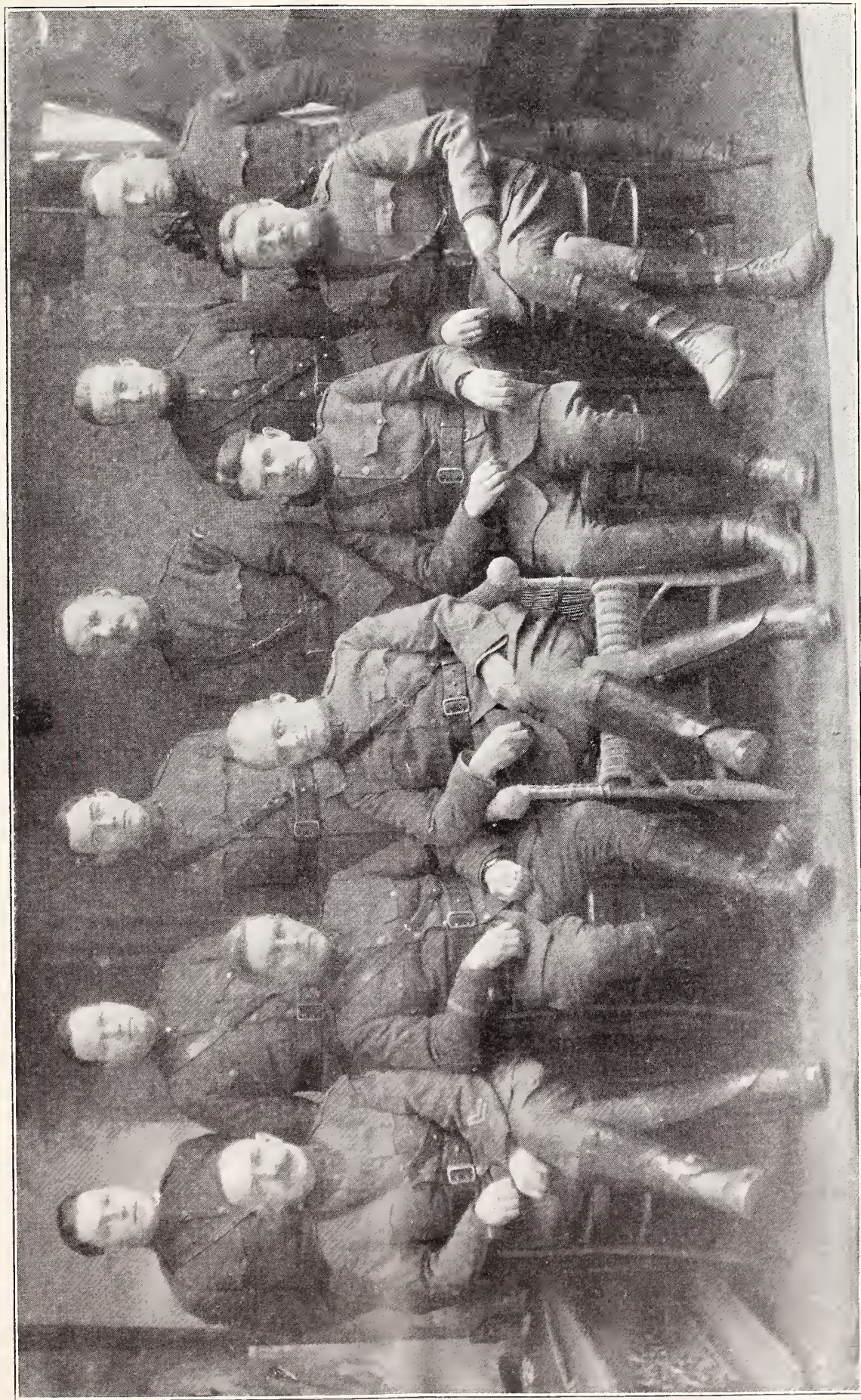
Major Charles O. Boswell, assumed command of the section as director of field hospitals. Major Herbert Bryson, commanded No. 165, Major John F. Spealman, No. 166, Major James P. Graham, No. 167, and Major Edward W. Lazell, No. 168.

Field Hospital Company No. 165, was instructed to open and conduct the camp hospital, pending the arrival and organization of the permanent personnel designated for that purpose. This was accomplished two weeks later and Field Hospital Company No. 165 was relieved.

The section now entered upon a period of active training and instruction until October 18, 1917, when, with the rest of the Division, it embarked for overseas service.

The trip across the sea, was uneventful, except for Field Hospital Company No. 166 which embarked on the U. S. S. President Grant. Field Hospital Companies, Nos. 165, 166 and 168, arriving at St. Nazaire, France, November 1, 1917. Field Hospital Company No. 166, having proceeded 900 miles to sea, was compelled to return to the United States, which was due to boiler trouble on the ship. On October 29, 1917, they arrived at Overseas Casual Camp, Governors Island, New York and remained at that station until November 1, 1917, when they were ordered to Camp Merritt, New Jersey. The company left Camp Merritt, New Jersey, November 14, 1917 and arrived at Liverpool, England, December 1, 1917. After a stay of ten (10) days at Winchester, England, proceeded to Le Havre, France, via Southampton, arriving December 12, 1917.

The three field hospital companies which arrived in France on November 1, 1917 were assembled at Mauvages, Meuse, on November 8, 1917. Here a hospital was opened and operated, to take care of the divisional sick, by Field Hospital Company No. 168 on November 11, 1917. This was the first hospital to be opened and operated by the 42nd Division in France and is worthy of description. It was located at Mauvages, and was situated on the side of a sparsely timbered hill, overlooking the town, in an old chateau, surrounded by walks, drives and shrubbery, and gave evidence of former splendor, but was now in a state of dilapidation. The building was unoccu-



COL. D. S. FAIRCHILD, JR., AND PERSONNEL STAFF



pied, save for two rooms, used by its present owner, the local cure, who purchased it from the descendants of the original owners. The building, which gave evidence of having once been beautiful and spacious, now showed its age to a considerable degree, and it was no small sanitary problem to transform such environments into a hospital for the care and treatment of the sick. On November 15, 1917, the hospital was transferred to Field Hospital Company No. 167.

Field Hospital Company No. 168, having received orders from the division surgeon's office, located at Vaucouleurs, proceeded to Chalaines, to open and operate a hospital. At this place a site was selected, on which there was an old chateau and several ward buildings, formerly used by the French as a hospital. The chateau was located on a beautiful hillside, overlooking the Meuse river, in a fair state of preservation, and surrounded by a large park, which was once the pride of its former owner. It is now owned by the widow of a French officer, who was killed in 1914 at Mont Sec. Here also, considerable difficulty was experienced in cleaning and preparing the buildings in order that more space might be had for the proper care of the sick and injured.

Field Hospital Company No. 165, established an auxiliary hospital at Burey-en-Baux, on December 6, 1917, just about 1 kilometer below Chalaine.

On December 1, 1917, twelve female nurses from Base Hospital No. 36 were added to the personnel of each of these hospitals, and proved a very valuable adjunct.

At Field Hospital Company No. 168 the first divisional field laboratory in the American Expeditionary Forces was established on November 25, 1917. Here, also the first problems arose and were mastered and employed for the operation of future field hospitals in this division.

Even at this early date, these hospitals were located near enough to the front to hear the roar of artillery fire.

The first difficulty encountered at this time was that of transportation, and this was vexatious. The divisional transportation had not been issued, and the means of transporting the sick from their organizations to the hospitals and again from there to the rear, was limited to a few, small Ford ambulances, in a very bad condition, for which there were few or no spare parts available. Vittel, France, was the evacuation point, for these hospitals, and it was therefore no small problem to evacuate to that place, a distance of fifty kilometers, with the limited amount of transportation available. During the first part of December, 1917, very cold weather was experienced,

and the soldiers not being acclimated, many cases were sent to the hospital, thereby taxing to the utmost the transportation and hospital facilities. During the stay in this area, the patients received at the field hospitals were not battle casualties and consisted mostly of sick, with the following ailments, contagious and infectious diseases, pneumonia and la grippe. These were treated as nearly as possible in the same manner as in private life. A few injured were treated, some with open wound and these we found required much more care and skill than in private life due to the fact that the soldiers were unable to keep their clothes and body in the same condition as at home.

During the stay in this area, several changes occurred in the field hospital section administration. Major Boswell, director, was transferred to the 117th Ammunition Train. Captain Henry F. Sawtelle, assumed command of Field Hospital No. 165, Captain A. J. Campbell, became commanding officer of Field Hospital Company No. 168, November 15, 1917, relieving Major Lazell, who was waiting for orders to proceed to a base hospital as a neurologist.

Preparations were now under way for the march of the division to the 7th Divisional Area, and was begun, December 12, being accomplished in two moves. The first march brought the section, excepting Field Hospital Company No. 166 at St. Blin on December 14, 1917. Here, Field Hospital Company No. 166 joined the section, having arrived from Le Havre, on December 15, 1917, which completed the section with the exception of certain details, who left it at Camp Mill N. Y., for Newport News, to care for the horses and mules, and officers who were at school in Gondrecourt. Nothing, worthy of note, happened on this part of the move, with the exception that we halted long enough in Doremy, to visit the home of Joan D'Arc.

At St. Blin, our first Christmas was passed and one of the most appreciated facts was the arrival of a large number of Christmas packages to the personnel from the United States, producing untold happiness and joy.

Major M. B. McMillan was made director, field hospital section on December 22, 1917. Major Lazell not having received his orders, was again put in command of Field Hospital Company No. 168.

Intensive training took place at St. Blin from December 14, 1917 to December 26, 1917. On December 27, 1917, the march to the 7th Divisional Training Area, was resumed and December 30, 1917, found the entire section at Longeau. The latter part of the march was very strenuous

on account of the cold weather, ice, snow and wind.

The officers who were sent to school at Gondrecourt, have finished their courses, returned on December 31, 1917. The section again took up training and remained at this station until January 18, 1918, when it was ordered to Humes, except Field Hospital Company No. 165, which was ordered to Langres to open and operate a camp hospital.

The detail which was left in the United States, to care for the horses and mules of the section, arrived while it was in Humes, on February 12, 1918.

The period of training was completed on February 17, 1917, and on that date the section, less Field Hospital Company No. 165, proceeded to the Luneville Sector, where the Division was to operate in conjunction with the French 164th Division. Field Hospital Company No. 165 remained at Langres.

Just before starting on this march, the English barrack shoe had been issued to the Division, this, we soon found was unsuitable for marching purposes. It produced a large amount of foot trouble, requiring the division orthopedist to suggest modifications in the footgear.

Just before this move, however, the transportation of the various companies was issued. Field Hospital Companies 165, 166 and 167 receiving motor trucks and Field Hospital Company No. 168 receiving animals and hospital wagons.

Field Hospital Companies Nos. 166 and 167 proceeded overland by truck to Loromontzey, Field Hospital Company No. 168 proceeded by train, unloading at Moyon, arriving at Loromontzey, by forced march, February 19, 1918. During the march, enemy aerial activity was marked and here the train received its first sight of the use of anti-air craft guns. This area had at one time been occupied by the enemy and the awful devastation was firmly impressed on the minds of all who saw it. Many German and French graves were located by the roadside.

The division surgeon's office was located at Luneville and from there orders were issued for the three field hospital companies to proceed to their respective stations, which were as follows: Field Hospital Company No. 166 was sent to Luneville on February 21 to open and operate Auxiliary Hospital No. 21 in conjunction with the French Service Sanitaire, at Chaufontaine, and entirely taking over Hospital No. 102 at Luneville. Field Hospital Company No. 167 was ordered to Luneville on February 25, 1918 and held in reserve. Its personnel, however, was sent in various details to assist Field Hospital Com-

pany No. 166 as the increased activities on that front sent a correspondingly increased number of casualties.

A surgical policy was pursued which was a modification of both the French and British systems of treating war wounds, without taking over the most extreme views of either one. This hospital admitted during this period, February 23 to March 23, 1918, 346 patients, of whom 95 were surgical, 168 sick and 63 gassed.

After a days' march in the rain, Field Hospital Company No. 168 arrived in Baccarat. Its work was at first very complicated, due to being split up into several detachments, made necessary by the character of the service and the arrangements that had to be made with the French authorities, and were, consequently, assigned in the following manner. One detail operated with the French in their ambulance hospital in Crystallerie park, an ideal place for the care of the sick. Another at Hospital No. 226, a large barracks hospital which had been partially destroyed by the Germans in their 1914 offensive. Here, sick and gassed were taken care of. Another detail was sent to the Hospital Temporaire, where sick were treated. Hospital Greche where all contagious diseases were given treatment, and a large detail was sent to Hospital Mixte, where severely wounded were treated. This latter hospital was very large and modern in all respects, caring both for civilian patients and soldiers. Excellent work was done here and on March 5, 1918, when after a barrage, about 100 severely wounded were admitted in several hours, without causing any inconvenience.

It was in Luneville and Baccarat, that the section obtained its training with the French. This gave us an insight into the enormous problem which was to confront us in the future.

On March 22, 1918, the Division having finished its training was ordered to a new sector.

One day's march brought Field Hospital Company No. 166 to Seranville and Field Hospital Companies Nos. 167 and 168 to Menil. At these points orders were received to stop—owing to the German offensive on the Western front, March 23, 1918, which necessitated the sending of all available French troops to that section of the line. Consequently, the hospitals as well as the rest of the Division were held awaiting further orders. Training went on as usual, during this halt.

As was stated in the preceding paragraphs, Field Hospital Company No. 165 remained at Langress to operate a hospital. This was not limited to divisional sick and wounded, but received patients from all of the troops in that area. Very

excellent work was done and the following number of cases were handled, 709 cases, of which 65 were operative with only 3 deaths. On March 20, 1918, it was ordered to Humes to await orders. On March 29, 1918, orders were received and the company proceeded overland, spending the first night in La Marche and the second in Vayon. April 1, 1918, the company arrived at Menil.

The division surgeon's office was moved to Baccarat and on April 3, 1918, orders were issued for the entire section to go to Baccarat. This time the Baccarat Sector was taken over independently by the 42nd Division. This was the first American division to hold a sector entirely on its own responsibility in the American Expeditionary Forces.

On the return to Baccarat, the distribution of the hospitals was as follows: Field Hospital Company No. 167 opened and conducted a hospital at the French Hospital No. 226 and a few days later turned it over to Field Hospital Company No. 165 and went into reserve.

Field Hospital Company No. 168 resumed operation at Mixte Hospital, Hospital Temporaire and took complete charge of Hospital No. 212. This latter hospital was soon worked into a very complete form, with operating room, etc., and here the following number of cases were treated; wounded 195, injured 258, sick 4683 and 31 gassed. Very little difficulty in this sector was experienced in operating the hospitals as the provisions and medical supplies were adequate.

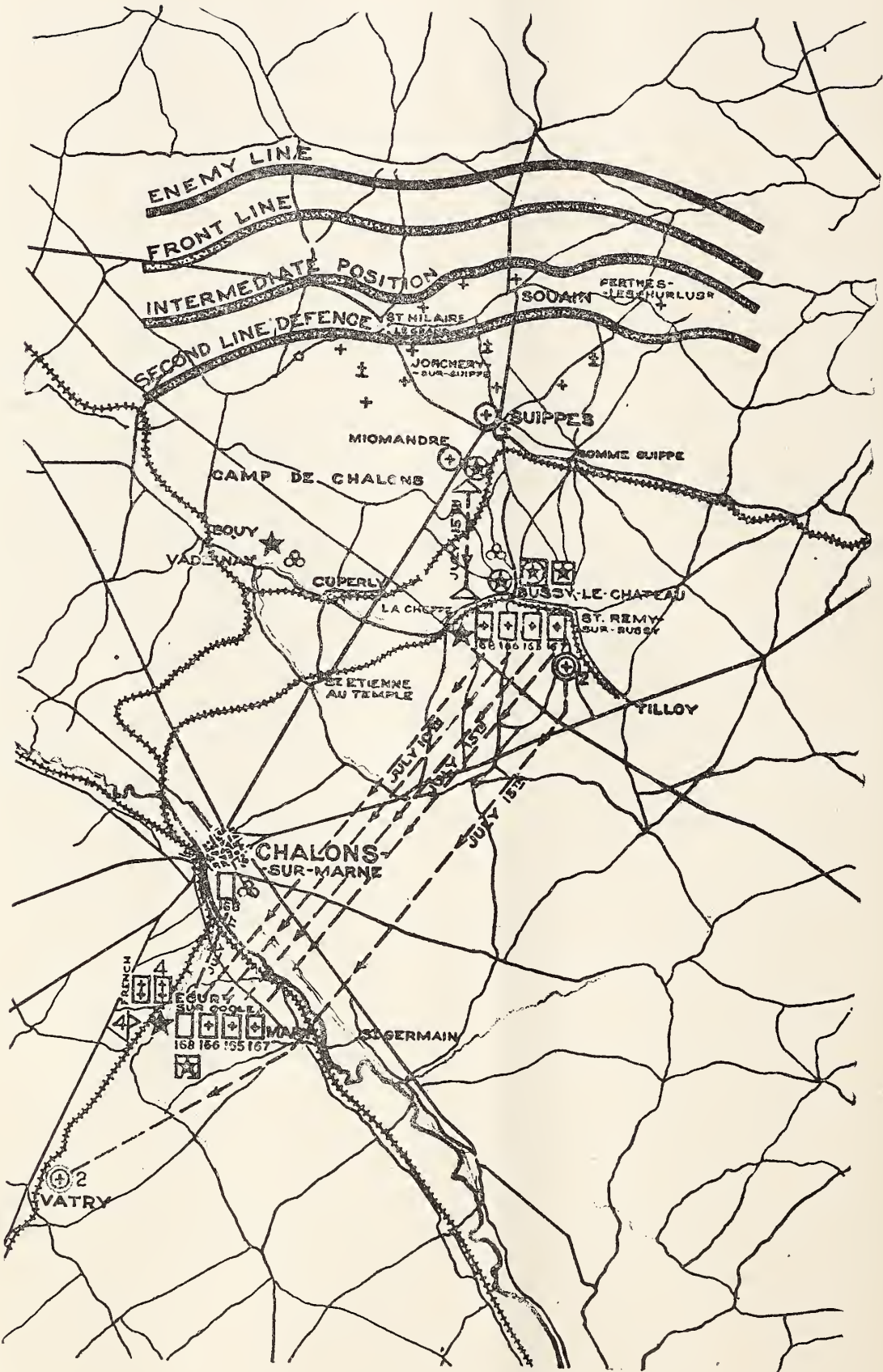
To the personnel of Field Hospital Companies Nos. 165 and 168, during the period of operations at Baccarat, were added twenty female nurses each, who were sent forward from the different base hospitals. These nurses rendered most valuable and efficient service and remained as a part of the hospital personnel until the departure of the Division from Baccarat, late in June.




















The increased prevalence of scabies and lice among our troops due to the fact that our troops had to occupy billets which the French colonial troops had evacuated, it became necessary for special treatment of these cases and upon the recommendation of Lieut.-Col. D. S. Fairchild Jr., the division sanitary inspector, a site was selected on the Meurthe river, where it made a turn just outside of the city limits of Baccarat, and it was here that Field Hospital Company No. 165 established one of the most modern hospitals for the treatment of these cases in the American Expeditionary Forces. This place was beautifully located and received much attention from officers visiting the Division, and was subsequently known as "Scratchville-by-the-Sea." Under that name a

description was written by several New York papers. A picture of this hospital can be seen in the Sunday edition of the New York Times dated July 28, 1918, which will point out the advisability of selecting this site. Together with the treatment, the patients were allowed to swim in the river and to take sun baths on the banks, and this greatly aided in their quick recovery.

During this period details from Field Hospital Company No. 167 were employed to conduct the Divisional Medical Camp No. 1, which was located near Merviller and equipped for the treatment of venereal disease. Considerable care was exercised in the selection of a suitable site for this hospital and it was finally decided to locate it in the center of a densely wooded area, well screened from aerial observations, a precaution which was very necessary in this sector on account of the marked aerial activity. The terrain was suitably prepared by cutting out as much underbrush as possible in order to give sufficient ground space for tentage. This hospital proved to be a model of its kind, and successful beyond the most sanguine expectations of its organizers. It was promptly and fully equipped with a complete and up-to-date armamentarium for the latest and most rational treatment of venereal disease in the field. The patients were formed into labor details and required to perform such duties as were not inconsistent with their treatment or condition, nor calculated to militate against their recovery. A second detail from this company was assigned for the operation of a bathing and delousing plant, established at Indian village. A complete description of this excellent and most efficient element of the division medical department will be found in the history of the sanitary department, 42nd Division.

About the middle of May, 1918, appeared an epidemic of a peculiar form of respiratory disease accompanied by temperature and a very pronounced malaise. This disease at the first called "Three Day Fever," but afterward proven to be a severe type of influenza, spread rapidly among the troops with consequent swelling of hospital admissions to the limit of their capacity. The most baneful feature of these cases was their susceptibility to the development of secondary pneumonia of a most virulent and fatal type. It was then determined to open a ward especially designed for the specific treatment of these cases of pneumonia, and to this end, a ward tent was erected on the lawn, on the left of Field Hospital Company No. 168. This tent, was completely screened on all sides, and fitted with screen doors, so that the sides of the tent could be kept raised at all times, when the weather permitted.



	Battalion Aid Station
	Regimental Aid Station
	Ambulance Dressing Station
	Detached Ambulances—Cab Stand
	Ambulance Company
	Director Ambulance Section
	Field Hospitals
	Detachment Field Hospital
	Director Field Hospital Section
	Triage
	Headquarters Sanitary Train
	Field Supply Depot
	Division Surgeon
	Mined Road
	Mobile Hospitals
	Evacuation Hospital
	Special Hospital
	Base or General Hospital
	Army Field Supply Depot

The weather was, for the most part warm and balmy, and the atmosphere free from dust, two conditions invaluable in the care and treatment of pneumonia.

Little or no difficulty was experienced from enemy activity at these hospitals with the exception of one night, in the early part of May, when several bombs were dropped with consequent destruction of part of one barracks building. No loss of life, however, was incurred.

The inevitable problem of the disposition of patient's equipment, and one which has from time immemorial engaged the attention of all military hospital administration. A survey of the methods employed by all allied armies resulted in the recommendation by Lieut.-Col. D. S. Fairchild, Jr., that the method used by the French Army be adopted. This method was as follows: Upon admission to the hospital the entire equipment of the soldier was turned in to a depot established for the reequipment of discharged patients. His pack was opened, its contents examined and classified. All unserviceable material salvaged, and all other material put into serviceable condition for reissue.

While at Baccarat, Major McMillian was succeeded by Major Charles Goodman. Major Goodman was afterward transferred to Field Hospital No. 167; Vice Major James P. Graham who was assigned to the 117th Engineers. Major Wilbur S. Conkling succeeded Major Goodman.

The service at this time was very active, as frequent engagement along a 15 kilometer front produced practically every variety of war wound and injury, and consequently when the section moved out to play its part in the expected extensive operations on the Western front, it was well equipped with material and transportation, and the technical situation well in hand.

The section operated in these positions until June 19, 1918, when orders were received to move into a new area, where, we did not know. The section was relieved by the field hospital section of the 77th Division, the change being made without any disruption of the service. Field Hospital No. 166, proceeded on the 17th to Ramberviller and opened a hospital in a building formerly used by the French as a hospital. Field Hospital Companies Nos. 165 and 167 proceeded on to Gudne-court and were joined by Field Hospital Company No. 168 two days later. On June 23, 1918, orders were received by Field Hospital Companies Nos. 165, 166 and 167 to proceed overland to Soulanges. Field Hospital Company No. 168 proceeded the same day to Chatel-sur-Moselle to

entrain. On June 25, 1918, the company entrained and after a ride of about eighteen hours arriving at Vitry-La-Francois June 26, 1918, and by forced march joined the other field hospitals at Soulanges. Field Hospital Company No. 165 opened and conducted a small tent hospital for the care of the sick and wounded. The section remained here for three days. The division surgeon's office was located at Mairy. On June 28, 1918, Captain Peter P. Rafferty assumed command of Field Hospital Company No. 167, Vice Major Charles A. Goodman transferred to Base Hospital No. 15. On June 30, 1918, the section received orders to move, which had to be done at night on account of the very active aerial observation and the following day, July 1, 1918, found the section assembled at Camp de Tracteur. The division surgeon's office again moved, and was located at Badenay. While at this camp, training was carried on with considerable difficulty, and we learned that extensive defensive preparations were being made.

After the German offensive of July 14, 1918, which will soon be described Camp de Tracteur was completely demolished by shell fire.

A change was made in the office of the division surgeon while they were at Mairy. Col. D. S. Fairchild, Jr., became the division surgeon. Col. J. W. Grissinger becoming chief surgeon, 1st Army Corps.

The section was now fully equipped, completely organized, and its plan of action so systemized as to not only cope with the ordinary battle conditions, but a safeguard of elasticity was also developed whereby any and all emergencies arising from unforeseen circumstances might be covered.

About July 7, 1918, the section was moved to Bussey-le Chateau, and on the 8th, Field Hospital Companies Nos. 166 and 168 were moved to Ecury-sur-Coole, leaving Field Hospital Companies Nos. 165 and 167. At Bussy-le-Chateau, was started a hospital for the care of the wounded and gassed. The hospitals were joined at this point by Mobile Hospital No. 2 and preparations on a large scale were made. This hospital consisted of about thirty large ward buildings with two operating rooms, and was indeed quite well adapted for the treatment of wounded. It was situated on the outskirts of the town near a railroad station. In the meantime the French had brought a large gun up on a flat car and on account of a broken axle were compelled to leave it at this place, much to our sorrow, as will be related later on.

The other hospitals that were ordered to Ecury-sur-Coole, established a large tent hospital near a French military hospital and were joined by Evacuation Hospital No. 4, on July 10, 1918. The

combining of these, made one large hospital which was required to make it very modern for operation in the field. Everything was now ready, waiting for the German offensive to begin.

On July 14, 1918, at 11:45 p. m., a veritable Hell broke loose. During this time, three officers were killed and four enlisted men were severely injured. One of the enlisted men being so badly injured that he never was able to return to duty. At Bussey-le-Chateau the bombardment was equally heavy, due to the fact that the Germans were trying to locate the large gun on the railroad track near the hospital. Here a large number of large calibre shells landed, with the result that a number of the buildings were completely demolished, also killing three enlisted men and wounded many of those already wounded. During the bombardment, the patients were carried into the trenches and dugouts, the surgeons proceeding with their dressings the best they could. This hospital was soon out of commission and the personnel transferred to Ecury-sur-Coole, with considerable difficulty. As the roads were of white chalk, they could be easily discerned at night by the enemy aircraft of which there were many. So active had these aeroplanes become that the patients had to be moved into the field at night, as they attempted and did, bomb the hospitals. All of the travel on the road must be done at night and it was at this point that the division surgeon had a thrilling experience. In an attempt to carry out his numerous duties, most of which had to be done at night, he was followed by an aeroplane, the occupant of which using his machine gun, thereby causing the division surgeon to leave his machine on the road and take shelter in the fields, three or four times in that one night.

It soon became evident that the distance between the front line and the hospital at Ecury was too far for the transportation of the seriously wounded, strongly against the advice of higher authorities, a detail from Field Hospital Company No. 168 was sent to Chalon where for five days and nights they worked under shell fire from long range guns and constantly being bombed all night, until the hospital had been partly destroyed, then all patients and personnel were ordered to leave the town.

Its previous general training in the Lorraine Sector, where its work covered the reception, treatment and administration of practically every variety of war wound and injury, had only to add to it the qualifications of the greater activity and a higher degree of mobility. It was necessary also to clear all decks for action by eliminating all unnecessary articles of equipment and reduce its armamentarium to a minimum; care at the same

time having been taken to eliminate nothing which would in any way contribute to its efficiency.

July 21, 1918, Field Hospital Companies Nos. 165, 166, 167 proceeded overland to Luzancy. Field Hospital Company No. 168, following by train the next day.

The division surgeon's office was moved to La-Ferte-sous-Jouarre. The section encamped in the woods surrounding the pretty village of Luzancy, and spent the day in arranging equipment. Field Hospital Company No. 165 also established a hospital here, and transferred it later on to Field Hospital Company No. 168.

Field Hospital Company No. 167 left Luzancy 2:30 a. m., July 25, 1918 for Bezu-le-Guery, when it relieved Field Hospital Company No. 104 of the 26th Division. Here a divisional gas hospital was set up and receiving patients by 9:30 a. m.

Field Hospital Company No. 165 and 168 arrived at Villers-sur-Marne on the 27th of July, very late in the evening.

The division surgeon received the information that the 84th Brigade would swing into close reserve, to take over the elements of the 26th Division and that the 83rd Brigade would follow as soon as they went through, in reserve. In going over the map, a place was selected one and one-half kilometers north of Chateau Thierry, and to this point, Field Hospital No. 166 was ordered, arriving on July 27, 1918. On their arrival there, they found the place which had been selected on the map, nothing more or less than cattle sheds, entirely impossible for a hospital, as it was in such a filthy condition. As it was impossible for them to locate a desirable point on the Soissons-Chateau Thierry road, the division surgeon, after a survey of Chateau Thierry itself, made arrangements with a French colonel, who was the town mayor, to take over a girls' convent, formerly used by the Germans, which would accommodate some 500 patients. Instructions were immediately given to Field Hospital Company No. 166 to proceed to this building and prepare it. They arrived at 3 p. m., and commenced their arduous task. It was very difficult, as the Germans had left it in a very deplorable condition, a description of which would not look well in print. The division surgeon anticipating possible early action made arrangements at corps headquarters at 9 p. m., the same evening to take over twelve corps ambulances and thirty-six, S. S. U., ambulances. Having obtained this authority, he proceeded to the hospital to transmit the authority for the transfer of these ambulances from the surgeon of the 26th Division, when upon arrival found that 350 patients had been admitted to the hospital and five operating teams, operating, only four hours

after the taking over of the building. By daylight the hospital was crowded to its utmost, and had this foresight been neglected, the condition of affairs, would have been indescribable.

The division surgeon proceeded, post-haste, to Villers-sur-Marne, arriving at midnight in a terrific downpour of rain, ordering Field Hospital Company No. 165 to Chateau Thierry to assist Field Hospital Company No. 168, took over Field Hospital Company No. 105 of the 26th Division. This hospital was located in an old chateau owned by Baroness Houard, wife of the famous artist and cartoonist, Baron Houard. The Baroness is the daughter of Francis Wilson, the famous American actor, whose home is in New Rochelle, N. Y. The building is large and palatial, located in the upper part of Villers-sur-Marne, and surrounded by a very pretty park. In the early part of 1914, she had opened her home as a shelter for the Belgium refugees, who were driven out of their country by the advancing central armies. The misery and hardships of these refugees is beautifully set forth in her wonderful book, entitled, "My Home on the Field of Honor." She herself, became a refugee, when the advancing army proceeded and took over her residence. While occupied by the Germans it was used as a headquarters of one of the generals. Her book aptly describes the destruction and devastation done by them while they were the occupants. Several German graves are now located in her front yard, where, previously only beautiful flowers grew. After the enemy had been driven back, she returned home and opened up a hospital for the reception of the French soldiers, who were either sick or wounded.

July 28, 1918, found Field Hospital Companies Nos. 166 and 168 crowded to their utmost, patients coming in by the hundreds. On the same day, Field Hospital Company No. 165 was ordered to Epieds to assist one of the ambulance companies in carrying on a triage. Many cases being treated there and then sent on to the rear. Field Hospital Company No. 167 moved to Chateau Thierry and established a hospital for the treatment of gas cases, in the grove just across the road from Field Hospital No. 166. Field Hospital Company No. 166 was the first American Hospital established in Chateau Thierry.

As the Germans retreated and our troops advanced, the distance between Chateau Thierry and the line got greater and greater, and it immediately became evident that a hospital must be started closer to the line than Chateau Thierry. consequently on July 30, 1918, Field Hospital Company No. 165 was ordered to Bezu-St.-Germain. The next day they were joined by Field

Hospital Company No. 167, which opened a hospital for the treatment of gas patients, large numbers now coming in. These hospitals had to function under canvas, as previously the town was destroyed by artillery fire. The location of these hospitals will forever go down in history, as only a short distance away was the location of one of the famous "Big Bertha's," that by shelling of Paris, so far away, became one of the world wonders.

The division surgeon's office moved from La Ferte to Trugny on July 28 and remained there until August 4, moving again to Beauvarden and remaining there until August 12. In this position the office was so far in advance as to almost become an advanced P. C., and on account of shell fire it was almost impossible to function. The Sanitary Train headquarters had moved to Bezu-St.-Germain and Field Hospital Section headquarters, to Chateau Thierry, in which positions they remained until August 12.

In this sector the field hospital companies were taxed to the utmost and at many times it seemed that they could not take care of any more, but on account of the "leap frog" system and elasticity, previously devised, by the division surgeon, the storm was weathered through, and after five sleepless nights, conditions remedied themselves.

Patients were evacuated from these hospitals by trucks, ambulances and boats. The boats plying on the Marne river. On August 12 the division surgeon's office was moved to La Ferte. Train and Field Hospital headquarters were moved to Luzancy, a few days later, followed by Field Hospital Companies Nos. 165, 166, 167 and 168.

Field Hospital Company No. 166 opened up a hospital for the divisional sick and on August 16 the entire section less Field Hospital Company No. 168 proceeded to Bourmont overland. Field Hospital Company No. 168 proceeded by train and arrived on August 19, 1918.

At Bourmont from August 18 to 28 Field Hospital Companies Nos. 166 and 167 conducted a hospital for the specialized treatment of skin and venereal disease, with baths available. Field Hospital Companies Nos. 165 and 168 remaining in rest.

On August 28, 1918, the entire section left for Longchamps, about 12 kilometers east of Neufchateau, where quarters were established and a hospital operated by Field Hospital Company No. 168 for sick and wounded. The time spent here was used in checking up property and reequipping for the next engagement.

The division surgeon's office was located at this time in Chatenois. A few changes took place

in the section, also at this time. Lieut.-Col. J. W. Frew, was assigned to headquarters, Fourth Army Corps, Major W. S. Conkling, assuming command of the 117th Sanitary Train, and Major J. S. Spealman becoming director, Field Hospital Section. Captain J. F. Nutz became commanding officer of Field Hospital Company No. 166.

The section left Longchamps on the 4th of September at 10:00 p. m. and arrived at Germigny at 4:30 a. m. on the 5th. From whence, after a stay of two days it moved to Bickelay, which was reached on midnight of September 7. This point served as a resting place for one day, and at night of the 8th the section again moved with Lagny as its destination. Stormy weather made our progress very difficult for these last two nights.

The division surgeon's office, located at Colombes-la-Belle on September 6 and 7 and at Toul on the 8th and 9th. The night of September 10 found the section located in the Forest-de-la-Reine surrounded on all sides by all branches of service awaiting the initial move to the St. Mihiel offensive, which began on the morning of September 12. During the stay in this forest two miserable nights were experienced as the rain fell in torrents.

The division surgeon's office moved into Bruley and remained there from the 10th to the 21st of September.

On the afternoon of the 11th, Field Hospital Company No. 166 proceeded to Ancerville, where it established a triage in an old barn. Shock rooms and dressing rooms were immediately fixed and arrangements were made whereby all patients were brought in the front door, treated in the triage and evacuated through the rear door, thus making one of the best triage positions we ever had. Field Hospital Company No. 168 received orders at midnight the same night to proceed at 4 o'clock in the morning for Ancerville to assist Field Hospital Company No. 166. Start was made at exactly 3 o'clock, but on account of the congested road, progress was slow, but as the route took them through the different artillery positions, a very impressive sight was in store for them. The offensive was now on in earnest and as they passed down the road within twenty-five feet of many large railroad guns, whose fire was directed by observation balloons directly overhead, difficulty was encountered with the horses and mules. Just at daybreak they passed many guns positions, principally of the "75" type. Flashes could be seen every place both on their right and left. The guns were pounding away at a terrific rate, caissons were all hitched up, troops in squad formation and everything ready for a

rapid advance. Montsec could be seen directly in front, flying over which were two aeroplanes, directing the fire and it was a beautiful sight to see the flash of the big guns behind, and the bursting of the shell on Mont Sec in front. September 12, Field Hospital Companies Nos. 165 and 167 proceeded to Mandres and were held in reserve. On September 14 they proceeded to Essey over almost impassible roads as the roads passed were through the French and German trenches that had not been used for four years, and during that time were always subject to shell fire.

The division surgeons office was located in Ancerville from September 21st to the 26th.

At Essey, Field Hospital Company No. 165 and Field Hospital Company No. 167 opened and functioned until the work of the Division had been completed, both as to the St. Mihiel offensive and to minor operation in the Woevre.

Field Hospital Company No. 168 proceeded to Beaumont on September 21 and opened a hospital assisted by Field Hospital Company No. 166 in the only building left standing in the town and part of this building had been demolished by shell fire. The entire personnel of these hospitals were compelled to sleep in dugouts. Rats, cooties and aeroplanes turned our night's rest into a nightmare. While here, many aerial battles were fought in full view. In this position the section functioned with the exception of a few minor moves until October 1, 1918.

On October 1 orders were issued from the division surgeon's office for the entire section to move to the Verdun sector. This was accomplished in two or three moves and by two distinct routes. Field Hospital Companies Nos. 165, 166 and 167 going overland by trucks, made their first stop at Hieppes. Here Field Hospital Company No. 166 established a small hospital for the care of the sick and injured, evacuating to an evacuation hospital nearby. Field Hospital Company No. 168 proceeded with the horse drawn ambulance company by the St. Mihiel route to the same point. Their first stop was just outside of the famous town of St. Mihiel, joining the rest of the section at Hieppes on October 3.

On October 4 the entire section was ordered to Dombasle, which was reached the same day. Field Hospital Company No. 168 established a small hospital under tentage in an orchard situated above the town.

The division surgeon's office moved to Recicourt. During this night the entire section was bombed by aeroplanes and many horses were killed, but no casualties among the personnel were suffered.

On the 5th Field Hospital Companies Nos. 165,

166 and 167 moved to the Melancourt Woods, a few kilometers above Avocourt and started a hospital under tents. On the morning of the 6th they moved to a point just below Avocourt, where they remained until the evening of the 7th from whence they moved to the Bois de Cheppy taking over, on the 8th the field hospitals of the 1st Division. They remained here until the 11th of October.

Captain A. J. Campbell was made assistant to the division surgeon during the stay at Cheppy.

Field Hospital Companies Nos. 165 and 167 moved on October 11 to Baulny. Field Hospital Company No. 166 moved to Cheppy the same date and was here joined by 168 on the afternoon of the 12th.

Field Hospital Company No. 165 after arriving at Baulny opened up a triage and hospital for the seriously wounded. Field Hospital Company No. 167 opening a gas hospital.

At both of these points the number of patients was enormous.

At both of these points an enormous number of patients were treated under the most trying circumstances, for they were being shelled constantly in the day time and bombed by aeroplane at night.

The rear Echelon of the division surgeon's office was moved back to Recicourt and the advanced Echelon forward to Baulny, on the 22nd of October.

On October 25 Field Hospital Companies Nos. 166 and 168 moved up to Baulny, going into reserve.

On November 4, 1918, Field Hospital Companies Nos. 166, 167 and 168 were ordered to move forward in the night. The enemy fire was terrific while this move was taking place. Field Hospital Companies Nos. 166 and 167 proceeded to Authe, arriving there on the night of the same day.

Field Hospital Company No. 166 opened up a triage and hospital for the seriously wounded and Field Hospital Company No. 167 opened up a hospital for the treatment of gas patients. Field Hospital Company No. 168 arrived at Briquenay on November 5 and opened a hospital for the seriously sick. They continued to operate in this position until the armistice was signed. Field Hospital Company No. 165 arrived at Briquenay the next day and assisted Field Hospital No. 168 and on the 7th the former company proceeded to Authe and went into reserve. On the 8th Field Hospital Companies Nos. 166 and 167 proceeded to Tanny to open a hospital for all classes of sick. Field Hospital Company No. 166 proceeded to

Chenery, arriving on the 9th and there, it was split up into two details. One detail in conjunction with an ambulance company, opened a triage and the other opening a hospital for the seriously wounded.

The division surgeon's office was located at Briquenay on the 4th until the 10th, when it

moved to Chenery.

The last night in Chenery will never be forgotten as it was bombed by aeroplane and shelled by range guns.

In the above positions the section remained until the signing of the armistice and cessation of hostilities November 11 at 11 a. m., 1918.

#### FIELD HOSPITAL NO. 165

117th Sanitary Train, 42nd Division. Bad-Neuenshr, Germany

	Wounds	Injury	Gas	Disease	Total
Langres .....	...	65	..	644	709
Baccarat .....	29	69	20	1733	1851
Soulanges .....	...	3	1	57	61
Bussy Le Chateau.....	126	25	3	233	387
Luzancy .....	5	4	..	40	49
Bezu St. Germain.....	174	25	..	238	437
Germiny .....	2	12	..	84	98
Essey .....	13	..	..	...	13
Baulny .....	369	7	1	16	393
Tannay .....	184	13	6	121	324
Stenay .....	...	5	..	159	164
Greisch .....	2	5	..	171	178
Prunzurlay .....	...	5	..	166	171
Lissendorf .....	...	5	..	149	154
Neuenahr .....	1	8	..	416	425

Note: Records of Camp Hospital No. 24 operated by this hospital not available, approximately 709 medical and surgical cases were treated there. Baulny Triage: 5800 wounded, 393 of whom required operation or shock treatment:

Epieds with Ambulance Company handled approximately 2000.

Field Hospital 165, 117, Sanitary Train, Mch. 23, 1919  
Memo. for Major Campbell:

The 165th Field Hospital was called out and mustered into Federal Service on the 25th day of July, 1917, at Camp Ordway, Washington, D. C., it then being the 1st D. C. F. H., N. G.

Left Camp Ordway August 19, 1917, enroute to Camp Mills to form a part of the Rainbow Division, it being the first complete company on the grounds. Here it was known as the 1st F. H. of the 42nd Division, previous to the final change.

Immediately after arrival a hospital was pitched near the Clinton roads (main) entrance until the arrival of the Alabama Infantry forced the company to move to a permanent site on the "back road to camp." Here a 200 bed divisional camp hospital was established, besides a surgical ward and operating room being taken over at the Nassau General Hospital in Mineola. On October 1, upon being relieved by a camp hospital unit, 307 sick ranging from measles to meningitis meningococcus had been treated, 22 surgical operations performed, with but two deaths besides inoculating and vaccinating practically the entire division.

HENRY F. SAWTELLE,  
Major M. C., U. S. A.

#### History of Field Hospital 166

In compliance with telephonic instruction D. S. O., March 24, 1919, the following is submitted:

Field hospital 166 sailed for foreign service Octo-

ber 18 on the U. S. S. Grant. October 22, 1917, boilers failed and U. S. S. Grant returned to New York, docking October 27, 1917.

The unit went into camp at Fort Jay, Governor's Island for three days when it moved to Camp Merit, New Jersey, remaining there until November 14, when it sailed the second time on H. M. S. Celtic, landing in Liverpool, England, December 2.

They traveled by train to Camp Windledown, near the City of Winchester, being quartered in barracks until December 11, on which date they sailed for La Harve, France.

Remaining in La Harve from the 11th to the 14th, they entrained for La Fouche, France, arriving there on the 16th.

Leaving La Fouche on the morning of the 28th, in heavy marching order, the company marched overland to Echot. One more day's journey took them to Mandres. The following day, they passed through Rolampont, arriving at Longeau on December 30, where they remained until January 8, 1918, when they moved to Humes.

On February 17, they marched to Rolampont, where they entrained for Moyon. The distance from Moyon to Loro-Montzey was covered on foot, on February 19, 1918. Leaving Loro-Montzey on the morning of February 21, the company marched to Luneville, arriving there the evening of the same day.

From Camp Mills until January 5, 1918, at which time he went to school Major John F. Spealman, M.

C., was commanding, First Lieut. Roy D. Bryson assumed command on the same day. He was relieved by First Lieut. William W. Van Dolsen on January 25, 1918. Other officers of the company at this time were: First Lieut. Claude F. Selby, M.C.; First Lieut. Victor L. Souby, D.C.; First Lieut. Roy E. Knight, D.C.; First Lieut. Harry Knight, D.C.; First Lieut. Carl O. Reed, M.C.; First Lieut. Edwin G. Reade, M.C.; First Lieut. Earl B. Erskine, M.C.

HEADQUARTERS FIELD HOSPITAL 166

117th Sanitary Train, 42nd Division Neuenahr, Germany, American Expeditionary Forces, Mch. 20, 1919  
From: Commanding Officer, Field Hospital No. 166.  
To: Division Surgeon, 42nd Division, American Expeditionary Forces.  
Subject: Patients received by Field Hospital No. 166 since arriving in France.

1. The following data required for completing Train History of the number of patients hospitalized and triaged by Field Hospital No. 166 since arriving overseas is as follows:

	Wounds	Injury	Gas	Disease	Oper.	Non. Oper.	Deaths	Total
Luneville, France, Auxiliary Hospital No. 102, Feb. 23 to March 23, 1918.....	72	23	63	188	15	25	3	346
Baccarat, France, April 23 to June 19, 1918 .....	...	..	..	736	..	..	0	769
Ramberviller, France, June 20-21, 1918 .....	...	4	3	35	..	10	0	42
Chateau-Thierry, France, July 26 to August 3, 1918.....	516	6	127	21	47	20	67	670
Luzancy, France, August 12-16, 1918.....	7	13	7	262	..	..	..	289
Bourmont, France, August 24 to August 28, 1918.....	Skin Diseases Only			173	..	..	..	173
Ansauville, France, Sept. 12-19, 1918.....	79	3	26	7	10	69	15	115
Authe, France, Nov. 5-7, 1918.....	10	..	..	2	3	7	1	12
Tanney, France, Nov. 8, 1918.....	4	..	..	1	2	2	..	5
Chimery, France, Nov. 8-9, 1918.....	55	3	15	13	5	6	13	86
Neuenahr, Germany, Feb. 8 to date.....	14	2	..	104	..	..	..	120

Operated in conjunction with Evacuation Hospital No. 4 at Ecury-sur-Coole, France, July 15 to July 19, 1918, helping care for about 2500 gas patients.  
Operated in conjunction with Field Hospital No. 168 at Neuenahr, Germany, December 16 to January 4, 1919, helping care for about 1500 patients.  
At least 5000 patients were distributed at Chateau Thierry readjusting bandages, etc., and feeding them before they were sent on to the rear. These patients were not hospitalized.  
Operating Triage at Neuenahr, Germany, from January 4, 1919, to date with total admittance of 4062 patients.  
CARL O. REED,  
Capt. M. C., U. S. A.

FIELD HOSPITAL 167

Place or Front	Wounded	Injuries	Gas	Disease	Total	Death
Mauvages .....	..	1	....	102	....	..
Luneville .....	..	...	454	101	....	2
Baccarat .....	..	...	4	346	....	3
Champagne .....	..	...	16	12	....	..
Chateau Thierry.....	..	24	922	265	....	1
Bourmont .....	..	...	....	83	....	..
St. Mihiel.....	..	...	44	...	....	..
Argonne .....	34	9	1128	253	....	2
Trip to Germany.....	..	121	....	913	....	4
Neuenahr .....	..	...	....	326	....	..

At Bezu le Guery about 200 wounded were given food and first aid which were never taken up on our records.  
At Chateau Thierry on the night of July 28, about 250 slightly wounded and gassed were given food and first aid which were never recorded on hospital reports.

## CASES HOSPITALIZED AT FIELD HOSPITAL NO. 168

Place or Front	Date	Wounds	Injuries	Gas	Disease	Total	Deaths
Camp Baldwin,	July 13, 1917						
Colorado	September 8, 1917.....	...	...	...	109	109	.
Mauvages	November 11, 1917						
France	November 15, 1917.....	...	...	...	75	75	..
Chalines	November 15, 1917						
France	December 24, 1917.....	...	25	...	420	445	2
Baccarat	February 22, 1918						
France	June 21, 1918.....	328	209	327	2269	3134	44
Chalons-sur-	July 16, 1918						
Marne, France	July 19, 1918.....	24	...	...	....	24	4
Luzancy,	July 25-26,						
France	1918 .....	6	3	1	31	41	..
Villiers-sur-	July 27, 1918						
Marne, France	August 15, 1918.....	395	5	...	49	449	36
Longchamp	August 30, 1918						
France	September 5, 1918.....	...	7	...	180	187	..
Beaumont	September 21, 1918						
France	October 1, 1918.....	...	10	3	290	303	..
Dombasle							
France	October 5, 1918.....	...	...	...	24	24	..
Bois de Cheppy,	October 8, 1918						
France	October 12, 1918.....	47	11	6	339	403	4
Cheppy	October 12, 1918						
France	October 24, 1918.....	36	46	247	475	804	4
Baulny							
France	October 31, 1918.....	...	...	...	25	25	..
Briquenay	November 5, 1918						
France	November 14, 1918.....	316	38	10	540	904	2
Arlon							
Belgium	November 22, 1918.....	...	...	...	28	28	..
Mersch							
Luxembourg	November 23, 1918.....	...	...	...	17	17	..
Dollendorf	December 9, 1918						
Germany	December 14, 1918.....	...	5	...	100	105	..
Neiderzessen	December 14, 1918						
Germany	December 16, 1918.....	...	10	...	197	207	..
Neuenahr	December 16, 1918						
Germany	March 1, 1919.....	...	109	...	1440	1549	3
Total, July 13, 1917 to March 1, 1919.....		990	478	274	6207	7951	99

Total surgical deaths, 75; operative, 47; non-operative, 12; dead on arrival, 16.

Number of serious multiple injuries, 50.

At Ecury-sur-Coole, about 2500 gas patients were taken care of by F. H. No. 168, going on record for Evacuation Hospital No. 4 (July 15, to July 21, 1918).

At Villiers-sur-Marne, July 27 to August 14, 1918, about 5000 wounded were estimated to have passed through F. H. No. 168, of which no record was made, and each received something to eat, at least.

LUNEVILLE SECTOR

	Killed in Action		*Wounded and †Gassed		Missing In Action	
	Officers	Men	Officers	Men	Officers	Men
Headquarters and Troop.....	0	0	0	1	0	0
149th Machine Gun Battalion.....	0	0	0	0	0	0
83rd Infantry Brigade.....	0	0	0	0	0	0
165th Infantry.....	1	24	19	408	0	4
166th Infantry.....	0	2	1	11	0	0
150th Machine Gun Battalion.....	0	9	5	138	0	0
84th Infantry Brigade.....	0	0	0	0	0	0
167th Infantry.....	0	4	1	8	0	0
168th Infantry.....	1	25	2	69	0	0
151st Machine Gun Battalion.....	0	1	0	5	0	0
67th Field Artillery Brigade.....	0	0	0	0	0	0
149th Field Artillery.....	1	1	1	27	0	0
150th Field Artillery.....	0	0	0	0	0	0
151st Field Artillery.....	0	2	9	71	0	0
117th Trench Motor Battery.....	0	0	0	0	0	0
117th Field Signal Battalion.....	0	1	0	1	0	0
117th Engineer Regiment.....	0	1	0	6	0	0
117th T. H. and M. P.....	0	0	0	0	0	0
117th Ammunition Train.....	0	1	0	0	0	0
117th Engineer Train.....	0	0	0	0	0	0
117th Supply Train.....	0	0	0	3	0	0
117th Sanitary Train.....	0	9	0	2	0	0
Total.....	3	80	36	750	0	4

\*Number wounded officers, 24, men, 339.  
†Number gassed officers, 14; men, 411.

BACCARAT SECTOR

	Killed in Action		*Wounded and †Gassed		Missing In Action	
	Officers	Men	Officers	Men	Officers	Men
Headquarters and Troop.....	0	0	0	0	0	0
149th Machine Gun Battalion.....	0	0	1	27	0	0
83rd Infantry Brigade.....	0	0	0	0	0	0
165th Infantry.....	0	3	0	8	0	2
166th Infantry.....	0	12	7	157	0	2
150th Machine Gun Battalion.....	0	0	0	6	0	0
84th Infantry Brigade.....	0	0	0	0	0	0
167th Infantry.....	0	8	4	98	0	3
168th Infantry.....	1	21	14	369	1	7
151st Machine Gun Battalion.....	0	0	3	28	0	0
67th Field Artillery Brigade.....	0	0	0	0	0	0
149th Field Artillery.....	0	0	1	18	0	0
150th Field Artillery.....	0	2	2	91	0	0
151st Field Artillery.....	0	0	5	38	0	0
117th Trench Motor Battery.....	0	2	0	11	0	0
117th Field Signal Battalion.....	0	0	0	5	0	0
117th Engineer Regiment.....	0	0	0	38	0	0
117th T. H. and M. P.....	0	0	0	0	0	0
117th Ammunition Train.....	0	0	1	4	0	0
117th Engineer Train.....	0	0	0	0	0	0
117th Supply Train.....	0	0	0	0	0	0
117th Sanitary Train.....	0	0	0	21	0	0
Total.....	1	48	38	919	1	14

\*Number wounded officers, 23; men, 202.  
†Number gassed officers, 15; men, 717.

## CHAMPAGNE SECTOR

	Killed in Action		*Wounded and †Gassed		Missing In Action	
	Officers	Men	Officers	Men	Officers	Men
Headquarters and Troop.....	0	0	0	3	0	0
149th Machine Gun Battalion.....	0	0	0	3	0	0
83rd Infantry Brigade.....	0	0	0	1	0	0
165th Infantry.....	1	43	7	245	0	3
166th Infantry.....	0	41	9	304	1	10
150th Machine Gun Battalion.....	0	16	0	32	0	2
84th Infantry Brigade.....	0	0	0	0	0	0
167th Infantry.....	1	65	5	300	0	10
168th Infantry.....	0	60	6	238	0	1
151st Machine Gun Battalion.....	0	12	2	55	0	0
67th Field Artillery Brigade.....	0	0	0	0	0	0
149th Field Artillery.....	2	1	3	7	0	0
150th Field Artillery.....	0	2	1	20	0	0
151st Field Artillery.....	1	2	3	55	0	1
117th Trench Motor Battery.....	0	2	0	2	0	0
117th Field Signal Battalion.....	0	1	0	5	0	0
117th Engineer Regiment.....	0	9	1	41	0	0
117th T. H. and M. P.....	0	2	0	0	0	0
117th Ammunition Train.....	0	0	0	0	0	0
117th Engineer Train.....	0	0	0	4	0	0
117th Supply Train.....	0	0	0	1	0	0
117th Sanitary Train.....	0	0	0	10	0	0
Total.....	5	257	37	1326	1	27

\*Number wounded officers, 27; men, 986.

†Number gassed officers, 10; men, 340.

## CHATEAU THIERRY SECTOR

	Killed in Action		*Wounded and †Gassed		Missing In Action	
	Officers	Men	Officers	Men	Officers	Men
Headquarters and Troop.....	0	1	0	4	0	0
149th Machine Gun Battalion.....	0	8	1	134	0	1
83rd Infantry Brigade.....	0	0	0	2	0	0
165th Infantry.....	13	224	45	1135	0	58
166th Infantry.....	5	125	6	739	0	2
150th Machine Gun Battalion.....	0	21	4	111	0	0
84th Infantry Brigade.....	0	0	1	0	0	0
167th Infantry.....	6	214	41	1026	0	12
168th Infantry.....	3	128	40	1077	0	0
151st Machine Gun Battalion.....	0	27	4	66	1	12
67th Field Artillery Brigade.....	0	0	0	1	0	0
149th Field Artillery.....	0	0	3	23	0	0
150th Field Artillery.....	0	11	1	49	0	0
151st Field Artillery.....	0	2	7	56	0	0
117th Trench Motor Battery.....	0	0	0	0	0	0
117th Field Signal Battalion.....	0	3	0	16	0	0
117th Engineer Regiment.....	1	6	0	42	0	0
117th T. H. and M. P.....	0	0	0	0	0	0
117th Ammunition Train.....	0	5	1	10	0	1
117th Engineer Train.....	0	1	0	2	0	0
117th Supply Train.....	0	0	0	1	0	0
117th Sanitary Train.....	1	0	0	13	0	0
Total.....	29	776	154	4607	1	86

\*Number wounded officers, 129; men, 3704.

†Number gassed officers, 35; men, 903.

ST. MIHIEL SECTOR

	Killed in Action		*Wounded and †Gassed		Missing In Action	
	Officers	Men	Officers	Men	Officers	Men
Headquarters and Troop.....	0	1	0	5	0	0
149th Machine Gun Battalion.....	0	0	0	0	0	0
83rd Infantry Brigade.....	0	0	0	0	0	0
165th Infantry.....	0	28	3	148	0	14
166th Infantry.....	2	23	7	115	0	20
150th Machine Gun Battalion.....	0	1	0	20	0	3
84th Infantry Brigade.....	0	0	0	2	0	0
167th Infantry.....	2	34	8	200	1	7
168th Infantry.....	7	61	13	254	0	1
151st Machine Gun Battalion.....	0	2	2	39	0	0
67th Field Artillery Brigade.....	0	0	0	0	0	0
149th Field Artillery.....	0	0	0	9	0	0
150th Field Artillery.....	1	1	0	8	9	0
151st Field Artillery.....	0	0	1	21	0	0
117th Trench Motor Battery.....	0	0	0	0	0	0
117th Field Signal Battalion.....	0	1	0	9	0	0
117th Engineer Regiment.....	0	10	0	20	0	0
117th T. H. and M. P.....	0	0	0	0	0	0
117th Ammunition Train.....	0	1	1	7	0	0
117th Engineer Train.....	0	0	0	0	0	0
117th Supply Train.....	0	0	0	1	0	0
117th Sanitary Train.....	0	0	1	3	0	0
Total.....	12	163	36	861	1	45

\*Number wounded officers, 31; men, 792.

†Number gassed officers, 5; men, 69.

MEUSE ARGONNE SECTOR

	Killed in Action		*Wounded and †Gassed		Missing In Action	
	Officers	Men	Officers	Men	Officers	Men
Headquarters and Troop.....	0	0	0	0	0	0
149th Machine Gun Battalion.....	0	0	0	3	0	0
83rd Infantry Brigade.....	0	0	0	0	0	0
165th Infantry.....	4	110	14	902	0	172
166th Infantry.....	0	70	3	474	0	4
150th Machine Gun Battalion.....	0	15	1	118	0	25
84th Infantry Brigade.....	0	0	0	0	0	0
167th Infantry.....	3	84	13	544	0	19
168th Infantry.....	2	85	18	598	0	4
151st Machine Gun Battalion.....	0	8	0	47	0	0
67th Field Artillery Brigade.....	0	0	0	0	0	0
149th Field Artillery.....	0	12	5	108	0	0
150th Field Artillery.....	0	6	3	74	0	2
151st Field Artillery.....	0	7	12	99	0	0
117th Trench Motor Battery.....	0	2	0	9	0	0
117th Field Signal Battalion.....	0	0	0	13	0	0
117th Engineer Regiment.....	0	9	2	40	0	1
117th T. H. and M. P.....	0	0	0	0	0	0
117th Ammunition Train.....	0	1	2	12	0	0
117th Engineer Train.....	0	0	0	0	0	0
117th Supply Train.....	0	0	0	2	0	0
117th Sanitary Train.....	0	2	0	4	0	1
Total.....	9	411	73	3047	0	228

\*Number wounded officers, 46; men, 2380.

†Number gassed officers, 27; men, 667.

	Killed In Action		Wounded In Action		Missing In Action		Gassed In Action		Total	
	Officers	Men	Officers	Men	Officers	Men	Officers	Men	Officers	Men
Luneville Sector.....	3	80	24	359	0	4	14	411	41	834
Baccarat Sector.....	1	48	23	202	1	14	15	717	40	981
Marne Defensive (Champagne)	5	257	27	986	1	27	10	340	43	1610
Aisne-Marne Offensive (Cha-teau-Thierry) .....	29	776	129	3704	1	86	25	903	184	5469
St. Mihiel Offensive.....	12	163	31	792	1	45	5	69	49	1069
Meuse-Argonne Offensive.....	9	411	46	2380	0	*64	27	667	82	3522
Total.....	59	1735	280	8403	4	240	96	3107	439	13485

\*Figure estimated.

CASES HOSPITALIZED IN FIELD HOSPITALS, 117TH SANITARY TRAIN, 42ND DIVISION, AMERICAN EXPEDITIONARY FORCES

Office of the Surgeon

Locations	Wounds	Injuries	Gas	Disease	Total
United States.....	0	22	0	394	416
France .....	10,052	668	7,425	14,383	32,528
Germany .....	17	270	0	4,027	4,314

The total number of patients passing through the hospitals, with and without records is 41,268. Of this number, many were passed through the Field Hospitals before the ambulance companies received their ambulances and in the different area, many patients were sent in by other Divisions and Corps ambulances, French ambulances, Camions, trucks and automobiles, which will explain the number passing through the hospitals and the number carried by the ambulance companies.

DECORATION OF AMERICAN WOMEN FOR MEDICAL SERVICE

A number of American women physicians from the American Women's Hospital at New York, who are now assisting the American Red Cross in caring for the sick and destitute in Serbia, Montenegro, and Albania, have been cited for conspicuous service. They are Dr. Marjorie Burnham, Dr. Mary H. Elliot, Dr. Harriet M. Gervais, Dr. Alberta M. Greene, Dr. Julu Peters, Dr. Marion C. Stevens, Dr. Regina F. Keyes, Dr. Mabel Flood and Dr. Catherine M. Cook.

The service rendered by Dr. Keyes is especially to be commended. At the first call from Greece, she went to Vodena, where with a few medical supplies she organized an emergency hospital. She had no operating tables, no sterilizers, no beds, no stove, nothing except her small kit of surgical instruments and a few pounds of medicines. An operating table was built of a few dry goods cases and some iron beds were borrowed from an abandoned military hospital. Old gasoline cans were utilized as stoves, dishes, sterilizers and everything needed to aid in an emergency. With this equipment, with the aid of Dr. Mabel Flood and two American nurses, Dr. Keyes opened the first American hospital in northern Greece. During the attack of the French and Serbians on the Bulgarians, Dr. Keyes served the French Army as regimental surgeon. Dr. Keyes is stationed

at Monastir, Serbia, at the present time. A second relief unit under the auspices of the American Women's Hospitals is expected to sail for service in Serbia before July 1. Dr. Mary M. Crawford of New York will be in charge of this unit.

MEDICAL FEES UNDER THE WORKMEN'S COMPENSATION LAWS

At a recent meeting of the executive committee of the Physicians' Protective Association of New York a resolution was passed calling attention to Governor Smith's message demanding revision of the workmen's compensation law, to prevent direct settlement between injured employes and the insurance carriers, and stating that a similar condition exists relating to the payment of physicians' fees by the insurance companies, which has resulted in the denial of the best medical service to the injured workmen and working women of the state. This is owing to the failure of the medical provisions of the workmen's compensation law either to provide a proper fee for medical service or to compel the payment of the fee awarded by the commission against the insurance companies. The governor was asked to include in his proposed revision of the workmen's compensation law a measure to remedy this form of injustice to the medical profession.

# The Journal of the Iowa State Medical Society

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THE INDIANA STATE MEDICAL JOURNAL

The Indiana State Medical Journal is drawing our attention to some very important facts, two in particular. Dr. Bulson has a broad view of professional life, he is watchful and never fails to give timely warning. A matter of considerable importance is the present condition of nurse training and the attitude of trained nurses towards a considerable portion of almost every community.

It is becoming more and more apparent that every community must in some way secure the best possible medical care and this must include nursing care as well as medical care. If it is true that trained nurses are organizing to create a monopoly for commercial purposes; that is, to place the cost of skilled nursing beyond the reach of all but the wealthy, not only so far as the pay of the nurse is concerned but also, as to the conditions of employment are concerned, the cost of sickness, irrespective of doctors' fees will be entirely beyond the reach of the masses of the people. The autocratic sentiments referred to by the Indiana Journal and by the Journal of the American Medical Association must be limited to the larger centers of population: we see but little of it in our smaller centers for the reason probably that the graduate nurses are from a section of country near the hospital training school and they retain local sentiments, but a sentiment more advantageous to themselves could be easily cultivated.

It is really to the advantage of the medical pro-

fession to cultivate the old time practical nurse by encouraging short courses of intensive training to fit young women for the ordinary nurse service, for the patient of limited means. The public feels friendly to something of this kind and many patients turn to the practical nurse from choice because they are more friendly and more willing to render service.

Dr. Bulson in the same issue of the Journal feels that the medical profession is losing its high place and becoming more of a trade with small returns; as the doctor himself occupies a high place in a special line of practice, what he says does not grow out of personal disappointment, but from real observation among men doing family practice and he is only saying what others are saying, and what he has said many times before.

When we analyze the situation, we find first, that when people are sick they must have a nurse, and the doctor to do himself justice insists upon it. Suppose the nurse and the assistants she must have cost \$50 a week and the bread winner receives from \$25 to \$40 a week, how much will there be left to pay the doctor. To be sure the time may come when expenses reach the normal, then the doctor may receive something, but how much and when? As it seems to us—being defective in figures—one thing or the other must happen, legislation which includes some form of social insurance—civic medical service, or there must be organized community hospitals to which sick persons may be transferred. These hospitals must be organized so that patients of the smallest means may receive the most efficient care and treatment.

The rich may still remain in their homes, cared for by private nurses regardless of expense, but the families of limited incomes and the wage earner must pursue a different course. The hospitals must not be free hospitals except to public charges, all others should be required to pay according to their means. This plan would probably mean some kind of state insurance unless the hospital was well endowed to meet the deficiency which is sure to come.

The doctor should not lose any of his importance or influence and should not receive a lessened income; if he does lose in any of these respects, it is his fault. If he sits quietly in his place and allows others to formulate the plans or secure the legislation he will certainly lose and should blame himself only.

What an opportunity to organize for economical purposes? Dr. Bulson is pessimistic because he knows the profession so well. We that are writing about these things and showing the dark side have not lost our faith in the medical pro-

fession. We only feel a duty in pointing out the dangers which threaten us.

What we have said does not apply in any marked degree to the country practitioner who may continue in the old economic way without danger. But we do need help from the constructive ability of the hard-headed sensible country doctor in formulating and carrying out plans. That the family doctors in the cities are troubled over the outlook is apparent when we observe the number that are looking for service with corporations, insurance companies and various institutions that employ doctors in one capacity or another.

We notice that some of the local medical societies are conducting organized plans of investigating the situation which confronts the profession and the relation of the profession to the public. It must be understood that they cannot be very far apart.

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#### DR. NORBURY'S ADDRESS

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The address before the Iowa State Medical Society by Dr. Norbury and published in the September number of the Journal is worthy of close study. Some interesting and distressing occurrences in the army and in civil life find an explanation in this carefully prepared paper.

Dr. Norbury finds in a class of mental defectives who found their way into the army an accounting for many of the court martial scandals. It is unfortunately true that the loose and careless way that our newspapers report events is calculated to do great injustice either in the way of excessive laudation, or of condemnation and there are a certain class of politicians who are ready to make use of such newspaper reports for purposes of their own, regardless of the injustice that may come to others.

The mental defects so often found among soldiers before the psychological tests were made, were not understood by officers coming in direct contact with men assigned to duties who were entirely unfit for such service or responsibilities and a more or less serious dereliction of duty demanded punishment to maintain discipline which may have been unjust, considering the intellectual qualifications of the soldier. Again, men of low intellectual endowment and moral fibre report unjust treatment which may have been far from the truth and which written up by an industrious reporter makes a bad impression with an uncritical public. We feel sure that the judge advocate general's department has often been unfairly censured by just this class of mental and moral derelicts. We are not infrequently entertained by

newspaper accounts of harsh and unjust treatment of patients in public institutions by the officers and attendants which have generally been found untrue on investigation, and faithful servants have sometimes been dishonorably discharged on account of complaints of mental defects. It is also true that physicians and dentists have been obliged to defend themselves against alleged criminal conduct by patients of this class, and entirely innocent defendants have been unjustly punished on the evidence of mental and moral degenerates. How far the same facts may apply to others we will not undertake to say, but often enough no doubt to make the subject a very serious one.

The paper by Dr. Norbury is very opportune and should be seriously considered by army officers and by army surgeons in examining recruits. The psychology of recruits is an extremely important matter and if mental defects are accepted they should be so classified as to prevent assignment to duties for which they are totally unfit. The dereliction in the way of desertion and malingering is also a part of this discussion which however we will omit. The relation of this class to the profession and others in civil life is no less important but must be met in a different manner. Too great care cannot be taken to avoid the danger to our financial interests and professional reputation.

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#### A VISIT WITH DOCTOR OSLER IN OXFORD

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All of England is beautiful in the later days of the month of July; green hillsides, fields of hops and grain, picturesque ivy-covered houses, and enclosed English gardens form an interesting landscape, so that the two hours ride from London to Oxford passed by very quickly.

My traveling companion, Colonel Louis A. LaGarde, M. C., U. S. A., and I, arrived in Oxford at the luncheon hour. Lady Osler was at the station with her Franklin car. There were two other visitors, Colonel and Mrs. R. P. Strong; in civil life Colonel Strong is professor of research medicine at the Harvard Medical School.

We were soon at No. 13 Northam Gardens. The master met us on the veranda with a greeting such as only he can give. He may be Sir William now, but he is still the same Doctor Osler as we knew him in the good days before he came to Oxford in 1905. We were aware that the medical world had taken notice some two weeks before of his seventieth birthday, for on this happy occasion Sir Clifford Albutt with his more than eighty years had made some jocular reference to his youthful colleague, and we too could testify that

age had dealt kindly with Doctor Osler. The old time black mustache is changed to gray, but otherwise the last fifteen years seem to have passed by unnoticed. The old time twinkle of the eye, the winning smile and elastic boyish-like activity, add to this the constant tendency to joke, and we have the Doctor Osler as his American

Pennsylvania, and particularly that another Joseph Priestley is to become a doctor from the same school where once his distinguished ancestor was associated with his first medical faculty.

We marveled at his memory and knowledge of details of the various happenings in medical circles in America. He seemed to know so much about old friends and the service that each had rendered during the war period. Many had called on him, for Oxford has evidently been the mecca for Americans during the past five years. Lady Osler informed us that her maid had kept a record of the visiting Americans to whom tea had been served during the above period, and the number was over sixteen hundred.

Two special hospitals for cardiovascular diseases and orthopedic conditions were established in Oxford during the war, and a large number of American Medical officers were stationed here from time to time. Lady Osler referred to the great pleasure it gave Sir William to have these fine young men about him. We all remember his particular affection for the younger members of the profession. The medical officers who were so fortunate in being associated in service with Doctor Osler, will no doubt, always treasure the memory of this experience.

We wandered about the beautiful garden and the interesting home, after which we saw a bit of the university and that to most of us means Oxford. There is a particular charm about Christ Church, Queens, Oriel, and the other colleges that form the University of Oxford; some of them are mellow with age, others belong to the newer group, but about all there clusters many interesting traditions of leading personages in English history. Knowing his fine cultural instincts and love for old books, one can readily see why Doctor Osler finds his new environment so attractive; he had to assume many new duties during the war period but his interests and sympathies continue to be directed in promoting the highest ideals in medicine. As an example, mention should be made of his activities in developing better facilities for postgraduate study, particularly in London. All who are interested in this subject will appreciate the necessity of co-ordinating the graduate work in London and Paris in order to keep American physicians from again going to Berlin and Vienna for this purpose. For the first time a definite scheme for post-graduate medical education has been accomplished by a union of all the undergraduate medical schools, existing post-graduate schools, and special hospitals of London, which will permit American and foreign physicians to avail themselves of the unusual clinical material afforded by post-graduate courses in



Dr. Bierring

Sir William Osler

Col. La Garde

friends have always known him. Colonel La-Garde and Sir William were born in the same year, and in the greeting of these two old friends, there was much of banter and compliment in regard to youthful appearances and the like.

In his many inquiries about American friends, one appreciates that he still entertains the warmest sympathies for America and her institutions, associated as they are, no doubt, with some of his happiest memories. One of his first questions was "How is my old friend, Priestley?" "Tell him I have just picked up several fine old works of his ancestor, Joseph Priestley." He was interested to learn that the two grandsons of our Doctor Priestley have entered the University of

London. This plan is referred to as the Osler scheme, and Doctor Osler is the chairman of the executive committee in charge of this new institution.

We returned to the house in time for that interesting English function, afternoon tea.

Colonel Strong's principal purpose in coming to Oxford was to ask the advice of the master, as he called him, in regard to accepting the position of medical director of the International Red Cross at Geneva, which would mean the League of Nations when it becomes established. Doctor Osler advised him to take up the work for one year at least. One week later in Paris we were privileged to be present when Colonel Strong received the French decoration of Officer Legion d'Honneur. It was an interesting ceremony in the courtyard of the Hotel des Invalides, where some thirty recipients for decorations were assembled in the early forenoon beneath the bronze statue of Napoleon in front of the chapel containing the tomb of the great French soldier. Colonel Strong as the ranking officer was the first to be approached by the military governor of Paris, who salutes the candidate, pins the decoration on the left breast, places his sword on the right shoulder, then on the left, kisses on the left cheek, then on the right, shakes hands, salutes, and passes on to the next. In matters of ceremonials the French are past masters.

Sir William and Lady Osler were making ready to leave the next day for the Isle of Jersey, their summer home. This has been a summer of peace and victory celebrations in England, but also a season of vacations, the first opportunity for relief from the great strain in five years.

The cruel war has brought the keenest sorrow to the Osler home, in the loss of an only son, as it has to so many in England. While attending a session of the upper house of Parliament our attention was directed to the fact that every member present, that evening, of this house of English Peers, had lost a son or a brother in the cataclysm across the channel. They say but little about it, and there is that about this quiet heroism in the aftermath of the great war that engenders a stimulating hope for brighter days for man's purposes and welfare in the future.

The many American friends of Doctor Osler will be pleased to know that he is planning to attend the meeting of the American Medical Association in New Orleans next spring.

The hour had come to say adieu. There was that in the words at parting, "Mighty glad that you boys came out," and in the final wave of the hand, that left a delightful impression of our visit to Oxford.

WALTER L. BIERRING.

### THIRD SURVEY OF HOSPITALS

The third survey of hospitals being made under the auspices of the American Medical Association is now well under way. Through an extensive correspondence and a third questionnaire the association has collected a mass of information on the subject. Much of this material has been tabulated and forwarded to committees in each state representing the state medical associations. Most of the state committees have arranged definite lines of action and by inspection of the hospitals or by other methods are securing firsthand information by which the data collected by the association is being carefully checked. The immediate end sought is to provide a reliable list of hospitals which are in position to furnish a satisfactory intern training. The investigation is not limited to intern hospitals, however, but will cover all institutions and the data obtained will be useful in any future action which may be taken in classifying hospitals. The work in Iowa is in charge of a committee of which Dr. Walter L. Bierring, chairman, secretary, Federation of State Medical Board, Des Moines and Dr. Henry Albert, professor and head of department of pathology and bacteriology, State University of Iowa College of Medicine, Iowa City. The closer relationship which the hospital now bears to the public in the community which it serves makes it all the more important that the service rendered by it shall be excellent in character.

### PSYCHOLOGICAL EXAMINATIONS

Columbia University has inaugurated a plan of psychological examinations to determine the mental fitness of students for future employment or professional work. We are too familiar with misfits and failure in every department of life not to welcome any plan which prevents young men from entering professional life or other employment that they were not intended for. We observe that scholastic accomplishment is not a certain criterion for future success.

The faculty of Columbia College, which is the undergraduate department of Columbia University, has decided to introduce a new system of entrance examination which is intended to determine the mental capacity of the prospective student rather than his scholastic training. The old style examination will be done away with, the applicant's fitness being determined by his school record, his character, his health record, and his mental capacity as determined by a series of psychological tests similar to those applied to applicants for admission to the student's Army

Training Corps. It is hoped that in this way students will be excluded who are mentally unfit to profit by the college training but who, under the old system, might have obtained admission through cramming.

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#### GAINS FROM THE SELECTIVE DRAFT

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General Crowder, of the American Army, has expressed the opinion that information gained from the medical statistics of the draft will be the means of saving a hundred times as many lives as were lost in the war. Some of the statistics available already from the records are very interesting. One thing clearly established is that foreign-born registrants were of lower standard physically than the native born. The percentage of mentally deficient was extremely high in the southern states—probably because of the negro population—while mental diseases and nervous disorders were more prevalent in the North. The percentage of men suffering from easily remediable defects was 2.76, and the percentage of those physically unfit for any kind of service was 16.25. Among the defects of the latter class were included defective hearing and vision, internal diseases, mental disease or deficiency, disabling deformities, muscular paralysis, and, most important of all, physical under-development.

The causes of physical under-development can in most cases be removed by social hygiene campaigns, competent medical supervision in schools and factories, proper exercise and physical training and by a public maintenance of hygienic standards as high as those already observed in civilized homes. Hence this latter class comes especially within the scope of a federal health authority.

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#### RADIUM

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Dr. Everett Field of New York presents an interesting paper in *Medical Record* of June 28, 1919 on Radium. Its Present Status as Surgery's Adjunct, Dr. Field presents under four heads. First, as a substitute for surgery; second, before surgical proceedings as a preparatory method; third, combined with surgical procedures; and fourth, post-operative or prophylactic use. Dr. Field limits his observations to malignant disease and in a certain class of cases he finds the radium treatment of decided value. He places cases in which a complete removal by operation is impossible. Cases which cannot be reached by the knife in a group in which radium is indicated. Dr. Field refers particularly to a class of cases which we would especially note:

There are three specific diseases where the reports of relief by the use of radium are so definite and certain and are confirmed by so many cases, as well as by the experiences of such a number of observers of unquestioned veracity and skill, that radium is, from the first, the method of choice. The diseases referred to are lymphosarcoma, tuberculous glands and fibroids of the uterus.

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#### GREECE HONORS UNITED STATES NURSES

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On June 5, King Alexander of Greece conferred the Medal of Military Merit on the Misses Sarah Addison of Baltimore; Marie Glauber, of Chicago; Alma Hartz, of Davenport, Iowa; Isabel Martin, of San Francisco; Emily Porter, of Bridgeport, Conn.; Clarissa Blakeslee, of Drexel Hill, Pa.; Edith Glenn, of Bristol, Pa.; and Florence Stone, of Plainfield, N. J., Red Cross nurses, for their work in fighting the typhus epidemic in Macedonia.

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#### REPAIR OF URETHRAL DEFECTS

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F. Legneu describes in the *Journal of Urology* for October, 1918, an unique method of repairing defects in the urethra which cannot be repaired by simpler methods. The sclerotic urethra is excised from the fistula to the base of the glands penis through a longitudinal incision underneath the penis. The glands is tunneled by a trochar, the incision being large enough to take a 26-F. sound. The outer end of the urethra, at the point of fistula is freed to about 1.5 c.m. In the meantime another operator is doing a colpoperineorrhaphy, a rectangular segment of the vaginal mucosa is dropped for a few moments in a warm artificial serum, then rolled about a 26-F. bougie, its edges caught with fine catgut so as to form a tube about 8 or 9 c.m. long. The bougie carrying the graft is then introduced into the tunnel in the glands penis and placed in the gutter left by the incision of the anterior urethra, care being taken to place the line of graft suture in the angle of the two corpora cavernosa. The end of the bougie is introduced into the urethra and sutured end to end to the graft by an interrupted catgut suture. The superficial tissues united in two layers over the graft and a small drain left in place, the outer extremity of the graft being sutured to the meatus. The bougie withdrawn on the third day.

Legneu has performed three operations by this method with two excellent and one good result. The technic is difficult and requires much time and skill. The author's patients were in the hospital for two years.

The first step is to establish a temporary diversion of the urinary stream by a urethra tongue by suturing the skin to both ends of the wounded urethra. Several months must elapse before applying the graft in order to secure freedom of infection.

The second preliminary requirement is a suprapubic cystotomy, preferably, before the urethrostomy, to further protect against infection. Third step, tunneling: the application of the graft of vaginal mucosa obtained as above indicated. This is a delicate procedure and must be cut to fit accurately; the method is described in detail in the published paper.

The after-treatment involves much care; the primary dressing is left in place for eight days. Eight days later a small bougie is very gently introduced and thereafter the caliber of the canal is maintained by bougus or sounds.

The fistulae are closed by dissecting up of the underlying tissue and suture of the skin over the urethra with silk worm gut. This is done after the graft has satisfactorily united.

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#### THE SALVATION ARMY

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The organization which will always in the future appeal to the soldier in the late war is the Salvation Army. Other organizations served useful purposes and were helpful to a degree, but none like the self-sacrificing Salvation Army worker who with but little money and little help came to the relief of the soldier when he most needed it even at the risk of life, on the battle torn field and in the trenches. The first to appear with coffee and doughnuts to cheer the exhausted soldier was the Salvation Army. We have thought too little of these people and have been too chary in our gifts in the past, our sympathy has not gone out to them in a generous way as we trust it will in the future.

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McGill sustains a severe loss by the resignation from the medical faculty of Colonel J. G. Adami. He has accepted the position of vice-chancellor of the University of Liverpool. For this position he is eminently fitted, as Dr. Adami holds all the qualifications necessary for the head of a large institution. Although he is best known as a pathologist, and as a compiler on pathology ranks among the very best, yet he is by no means a one-sided man. He has a breadth of knowledge seldom seen in medical men of today.

He was largely instrumental in organizing No. 3 General Hospital and went to England with this unit. He was retained in London in an administrative capacity and later assumed the duties of medical historian for the Canadian forces. The result of his

work in the latter capacity is evident from the book just published in England, "The Story of the C. A. M. C." This book has been well received and favorably reviewed both in England and here.

Only recently Colonel Adami was appointed a commander of the order of the British Empire as an appreciation of this work during the war. The Journal, in which he always took a great interest, extends to him its congratulations on the new appointment at Liverpool, and the recognition given to his work during the war.—(Journal Canadian Medical Association.)

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#### A NEW INCISION FOR APPENDECTOMY

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Annals of Surgery, October, 1918, Vol. lxviii, No. 4, page 397. Leigh F. Watson, M.D., Chicago.

The number of incisions that have been brought forward for appendectomy from time to time, show that no one incision is adapted to all cases. Many writers have noted that in the cadaver the base of the appendix is found at McBurney's point, while in the living subject it is below this point, usually on a level with the center of Poupart's ligament. A number of operators have called attention to the ease with which the appendix can be removed when operating for right inguinal hernia. Since 1910, I have used a new incision, with its center over the base of the appendix, and believe that in many cases it is an improvement over those in general use.

**Incision**—A point one and one-half inches from the right anterior superior spine, on a level with a line connecting the two superior spines, is selected for the beginning of a vertical incision which extends directly downward for two to three inches to a point just above, and to the inner side of the internal abdominal ring.

**Advantages**—Traction to expose the appendix is avoided, because this incision, in the external oblique and its aponeurosis, the most resistant structures, is directly over the base of the appendix. It can be enlarged without weakening the abdominal wall. The ilio-hypogastric and ilio-inguinal nerves are not injured because the incision lies between them. Because this incision is made over the cecum, the small intestines do not crowd into the wound as they do when the McBurney and lateral rectus incisions are used.

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Some of the members of the Saint Louis Medical Society have organized a section of that body called the Clinical Section of the Saint Louis Medical Society, and have established a system of clinics to which members of our association are invited when they are in Saint Louis. The advertisement appears in this issue under the heading Saint Louis Clinics. There is a large amount of clinical material in St. Louis which has never been organized, but now should afford splendid opportunities for physicians who desire to take advantage of the arrangement.

## IOWA CLINICAL MEDICAL SOCIETY

A meeting of the Iowa Clinical Medical Society will be held at St. Vincent Hospital, Sioux City, October 25 at 9 a. m.

The Program is as follows: A New and More Correct Classification of Anemias, Frederick Proesch (by invitation), Pittsburgh, Pennsylvania; Blood Transfusions—Demonstration of Technic, Wm. G. Rowley, Sioux City; Neurological Clinic, Edw. M. Williams, Sioux City; Comprehensive Examination of the Patient, John W. Shuman, Sioux City; Medical Clinic, George W. Koch, Sioux City. At 1 p. m. luncheon will be had at the Elks' Home, followed by a discussion of the program.

President, C. P. Howard, Iowa City; secretary, J. S. Weingart, Des Moines.

## SOCIETY PROCEEDINGS

The following program before the Appanoose-Davis County doctors was given at Moulton in the office of Dr. W. L. Downing on Tuesday evening.

What the Fluoroscope will Show in the Chest and Abdomen—Dr. C. S. James, Centerville; Dr. H. C. Young, Bloomfield.

My Experience with Influenza the Past Winter—Dr. C. P. Tillmont, Centerville; Dr. E. T. Printz, Moulton.

Mistakes of the Country Practitioner from the Viewpoint of the City Physician—Dr. E. E. Bamford, Centerville; Dr. Toben, Bloomfield.

What Tonsils Should be Removed, and My Method—Dr. W. E. West, Centerville; Dr. Chas. Shelton, Bloomfield.

Difficulties in Labor—Dr. C. S. Hickman, Centerville; Dr. J. A. Repogle, Udell.

Summer Diarrhoea of Infants—Dr. C. C. Heady, Bloomfield; Dr. T. H. Case, Unionville.

The visitors were given first degree treatment by the local physicians and seemed to be glad to get to a good town.

A meeting of the Jones County Medical Society was held at the Country Club House last Thursday evening. Those present at the meeting were: Drs. Dale Paul and W. W. Hunter of Anamosa, Drs. Jones and Chamberlain of Wyoming, Dr. Leonard of Cascade, Dr. Young of Center Junction, Drs. T. M. Redmond, Harry McGarvey, John G. Thomas, C. G. Thomas, L. G. Stuhler and George J. Wenzlich of Monticello, and Dr. Downing of Cedar Rapids. Papers were read as follows: The Care and Feeding of Premature Infants, Dr. Downing of Cedar Rapids; Appendicitis, Dr. C. G. Thomas of Monticello, and Empyema, Dr. Harry McGarvey of Monticello.

The following new officers were elected to serve during the ensuing year: President, Dr. Dale Paul of Anamosa; vice-president, Dr. L. G. Stuhler of Monticello; secretary-treasurer, Dr. T. M. Redmond of Monticello. It was voted to hold the next meeting at Anamosa, October 2. This was the first meeting

that has been held during the past two years.

It is planned that in the future meetings shall be held every three months and at each meeting papers of interest will be read and discussed. At the close of the business session the following resolution was passed by the members of the association:

Whereas: The present high prices of medical supplies and all the necessities of life, continue with no prospect of abatement, and physicians have been doing their work in the past, at fees formerly prevalent.

Therefore be it resolved that a moderate increase in fees be put into effect, to date from this meeting, to meet present conditions.

The Waterloo Medical Society, which embraces only Waterloo physicians, is one of the noted medical societies in the state—it maintains one of the most elegantly furnished and completely equipped club rooms of any similar society in any city and at its rooms during the year, many noted medical men from other states, and other medical centers have been heard on topics of importance connected with professional work. Here every other Wednesday the members meet to discuss important cases which have occurred in their respective practices and in this way the patients of every physician get the benefit of a consultation of his case in which the entire profession takes part, thus giving to each patient a standard of service which could not be obtained in any other place without cost to him, and without any physician knowing the name or station of any patient whose case is under discussion.

A few years ago the Waterloo Medical Society, realizing that the cost of a complete laboratory and x-ray equipment was out of the reach of many of its members, conceived the idea of establishing a laboratory under the auspices and at the expense of the Society thus giving to every member the advantage of the most modern and useful instruments and devices for an accurate and positive diagnosis of all cases. They also employed a skilled laboratory expert to do the work and a skilled expert in the use of the x-ray machine; they purchased at a great expense and in collaboration with the two leading hospitals a full equipment of x-ray apparatus and installed one in each of the hospitals.

Later when experience demonstrated the wisdom of the plan the laboratory and x-ray apparatus was taken over by Dr. Joseph W. Roundtree, who had long and successful training in the Rochester clinic and in the Presbyterian hospital, and Rush Medical College in Chicago, one of the largest hospitals in the country. Under the aggressive and advanced policy of Dr. Roundtree the Waterloo laboratory and its x-ray machines are doing an immense amount of work not only for Waterloo physicians but also for physicians within a radius of 100 miles around.

Recently the profession has been awakened to the value of radium as a means of the treatment of heretofore incurable troubles. Dr. Roundtree has bought and contracted for \$10,000 worth of this precious metal and has been adding to the medical prestige of his adopted city and its professional men by the

introduction of this means of treatment of cases, many of them otherwise hopeless. So that when it is stated that Waterloo is rapidly becoming an important medical center, it is speaking "by the book and the record."

The matter of a city and county hospital for Fort Dodge was discussed at a joint meeting of the Webster County Medical Society and the board of supervisors this morning. No action was taken by the supervisors. They promised to take the question under consideration and will announce their decision very soon.

According to a law passed by the last legislature the board of supervisors have the power to levy a two mill tax which can be used for the building and maintenance of a city and county hospital. Fort Dodge physicians feel there is need of such an institution here, especially for the care of contagious diseases and county patients. The proposed institution would also be used as a general hospital.

### MEDICAL NEWS NOTES

Ample hospital care in a modern hospital is assured the students of Grinnell College by an agreement entered into yesterday between the college and the new Community Hospital. Under this agreement any student of the college who becomes ill or is injured or in any way is in need of hospital care will be given the proper attention without any charge so far as the hospital is concerned.

One of the conditions of the agreement is that the hospital shall conduct a one-hour course in nurses' training which shall be open to any college students who may desire to take it.

The arrangement is one which will prove of value to the students as it will give hospital facilities which have never before been possible. Incidentally it will obviate the necessity of using the basement of the Ward Field grandstand as a detention hospital.

Appointment of Dr. Samuel T. Horton, one of the five leading psychiatrists in the world, to the chief position in the state psychopathic hospital soon to be erected at the university of Iowa, was announced yesterday from the office of Dean L. W. Dean of the University College of Medicine. Dr. Orton will come to Iowa from the University of Pennsylvania hospital in Philadelphia. Dr. Orton's specialty is in dealing with mental disorders and insanity, and it is in that field that he has distinguished himself. During the next year he will visit the university only periodically to make plans for the new hospital and supervise its construction, but with the completion of the building he will take up permanent residence in Iowa City and devote his full time to the university.

Dr. Herman Fischer, chief medical examiner of the Chicago, Burlington & Quincy Railroad Company, with headquarters at the West Burlington shops, has resigned his position to resume private practice in Burlington. Dr. A. B. George, who has been but

recently released from the United States Army where he served as a captain in the medical corps during the war, and former chief medical examiner for the railroad at Lincoln, Neb., has arrived in the city and took up his duties as the successor of Dr. Fischer yesterday.

At a meeting of the Keokuk County Red Cross Committee at Sigourney, it was decided by Sigourney's representatives, the other delegates assenting, that the county should build a hospital at Sigourney as a memorial to the soldiers, sailors and marines who served with Uncle Sam in the World War. The idea is to put the money that is usually spent on bronze tablets into a work of actual benefit to all. According to plans, county boys who were in service and their dependents are to have free treatment at the hospital and other privileges.

The cities of Bismark, Jamestown, Valley City, Dickinson and Mandan, North Dakota talk of uniting to employ a health officer for the five cities, a man who would give his whole time to the work.

Dr. Hugh Cabot of Boston has been appointed head of the department of surgery of the University of Michigan. The friends of the university will be pleased to know that the institute has succeeded in securing a man so distinguished in the counsel of the profession.

Announcement has been made of the removal of: The State Board of Health of Kentucky, The Bulletin of the State Board of Health, The Kentucky Medical Association, and The Kentucky Medical Journal, from Bowling Green, Kentucky, to 512 W. Main street, Louisville, Kentucky.

### PERSONAL MENTION

Dr. W. G. Johnson who has returned from France, has been honorably discharged and has purchased a home in Le Claire, Iowa, where he will practice henceforth, associating with Dr. C. C. Johnson.

Major Vernon Roberts, M.D., former Des Moines physician and regimental surgeon of the 47th Infantry of the Fourth Division, has returned from overseas and is now stationed at Camp Dodge.

Dr. Thomas Bess, who for the past two years has been in the service of the Medical Corps of the United States Army, was discharged from Camp Dodge.

Dr. Thomas Andrew King, S. U. I. medicine, 1905, has returned from France and has gone to his old home in West Union. He will locate in Mason City. Dr. King was a captain in the medical corps over a year. He was discharged recently at Camp Boyd, Texas.

Dr. H. C. Hofle, who has practiced medicine in Davenport for thirty years, has moved to Ithaca, New York.

Dr. A. A. Shultz of Ft. Dodge, has returned from service with Base Hospital No. 88. There were six

(Continued on Adv. Page xviii)



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## Doctors Should Specify

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"The two most important prerequisites to success in the use of the drug appear to be:

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## PERSONAL MENTION

(Continued from Page 364)

Iowa physicians in this unit as follows: The commander, Lieutenant Colonel Begg, was formerly a professor at Drake University in Des Moines. The Iowa physicians in the unit were Drs. Dowling of Des Moines, Voss of Iowa City, Weidlein of Wellman, Wilkinson of Perry, Blything of Davenport and Schultz of Fort Dodge.

Dr. E. J. Gottsh will soon arrive in Shenandoah. Dr. Gottsh had a lot of practical experience in the Canadian Hospitals at Montreal and Winnipeg in the days before the United States entered the World War. After enlisting in the American service he was sent to Ft. Oglethorpe, Georgia, with 500 others, and thence was selected as one of twenty-five sent for special training at the Armour Institute and thence to Ft. Still and later to Europe, where he had a great deal of experience.

Dr. H. McCoy has changed his location from Churdan to Scranton.

Dr. Ralph E. Gray has located in Eldon for the practice of medicine.

Dr. A. W. Bennett of the Class 1918, S. U. I., has located in Iowa City.

Dr. C. S. Chase has resigned the chair of Pharmacology in the Iowa State University and will assume the duties of recruiting nurses for the university hospital; an important service under the enlarged hospital activities.

Drs. W. W. Beam and Dr. T. R. Campbell of Rolfe have joined in a partnership for the practice of medicine. Dr. Beam has practiced in Rolfe since the beginning of things and Dr. Campbell is of wide training and saw much service in France during the war.

Dr. B. Houston, after a service in the medical corps of the army, has returned to Nevada.

Dr. C. H. Bartruff has received his discharge from army medical service and will resume practice in Reinbeck.

Dr. R. W. Sluter of Rockford has returned home after a special course at Harvard University under Dr. Cabot.

Dr. Thomas T. Duhigg, medical examiner for the United States Navy at Des Moines, has been granted a month's leave of absence, to take effect immediately upon the arrival here of Dr. John H. Morrissey, now on the U. S. S. Great Northern in the Atlantic.

Dr. G. L. Pray expects to start for the Philippine Islands, having received orders from the surgeon general to report for duty. He goes from here to San Francisco and will sail for Manila.

Capt. John A. McIntyre, 119 West Fourteenth street, Davenport, has returned to this city after eleven months of overseas service with the medical train of the Sanitary Corps of the 88th Division. Capt. McIntyre has seen action at Alsace-Lorraine and Toul and was in the Argonne reserves.

Fourteen stations have been established in different sections of the country at which discharged soldiers, sailors and marines who are beneficiaries of the war risk insurance act may obtain medical treatment.

An officer of the public health service is in charge of each of the stations.

Sheldon is to have a community hospital. The company is to be organized with a capital stock of \$150,000.

Dr. Carl Mulky of Knoxville has removed to Albuquerque, N. M., where he is professionally connected with the Murphey Sanitarium for tuberculosis.

Capt. J. W. Osborn of Des Moines, after twenty-five months service at Camp Riley, received his honorable discharge at Camp Dodge September 13. Capt. Osborn will resume his practice in Des Moines with offices in the new Iowa building.

Dr. M. L. Pindell of Macksburg has located in Winterset.

Dr. C. N. Bos of Chicago formerly of Pella has located at Rock Valley, Iowa.

Dr. Sarah R. Kelman of Iowa City has removed to Keokuk where she is associated as director with the Keokuk Clinical and Pathological Laboratory.

Lieut.-Col. Hans Hansen of Logan has received his honorable discharge and resumed his practice at Logan. At the beginning of his service, Dr. Hansen was assistant division surgeon at Camp Dodge and later was division sanitary inspector. Upon arrival overseas, he was made division surgeon of the 88th Division and commissioned Lieutenant Colonel. After the armistice he was sent to the University of Paris where a course in surgery and gynecology was taken.

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OBITUARY

Dr. Commodore Perry Conlson of Chesley died at his home August 15, 1919, fifty-nine years of age. Dr. Conlson was a graduate of the State University of Iowa in the class of 1889. Practiced in Chelsey thirty years.

Dr. W. C. Bills died at his home in Durant Saturday. For some time he has been in poor health, and only a short time ago went to a hospital at Iowa City with the hope of gaining relief.

Willis Clifford Bills was born at New Haven, Connecticut, May 7, 1856. When he was sixteen years old he came to Durant to make his home with his uncle, Dr. E. B. Bills. He attended the State University and after taking his degree, went to Kansas, where he practiced medicine for seven years. Returning to Durant he and his uncle were in business together. After the death of the latter Dr. Bills gave up his business but continued to make his home in Durant where he was married to Miss Amanda Telsrow, November 9, 1911.

Fred Perkins Lierle, M.D., aged forty-eight, Rush Medical College, 1894; Fellow of the American Medical Association; Member of Iowa State and Marshall County Medical Societies; an eye, ear, nose and throat specialist, practicing at Marshalltown for nearly twenty-five years, died at his home in Marshalltown, September 10 from Bright's disease.

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## THE RECONSTRUCTION PROBLEM FOR THE DISABLED SOLDIER

MAJOR JOHN L. PORTER, Chicago

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*Mr. President and Members of the Iowa State  
Medical Society:*

The problems that have arisen in the attempt of the war department and the surgeon-general's office to reconstruct disabled soldiers have been extremely varied and numerous. Some have been simple and some difficult, some have been solved and some are still unsolved. Some have affected the medical profession only, others have involved questions far outside the realm of medicine. But the thing that appealed most to me as I watched, week after week, the way the various plans are working out and the results that are coming to be seen, was the splendid cooperation and enthusiasm, not only of the medical profession, but of every profession, every industry and every economic activity of this great land, to make these plans a success.

That we may realize how well the medical profession has responded I need only remind you that when war was declared there were less than five hundred surgeons in the regular army, while ten months later there were thirty-eight thousand medical officers in the medical corps and practically every one of them enlisted. Do you realize what that means? It means that when the armistice was signed there were more medical officers in service, in uniform, in the United States Army than the entire army amounted to before the war. And yet they said we would not fight!

Considering the broad scope of the government plan for the disabled soldier, the term rehabilitation is more appropriate than reconstruction, because the effort of the war department has been not only to reconstruct the injured physically, but to rehabilitate him economically. The mental picture of the economic and industrial aftermath of our Civil War with its horde of maimed and crippled veterans returned to the social body to be supported or to eke out a pre-

carious existence upon a meager pension, was very vivid in the minds of some of our administrative officials when this war began; and with the vision of the large numbers of disabled soldiers that would be returned to us if the war continued, it was inevitable that a repetition of such conditions in this day would be a national calamity. The sight of an ancient soldier wearing the uniform and peddling newspapers and pencils to make a living is a reproach to our social and industrial organization, and it was the realization of this fact that brought about the plans for reconstruction, and the care of the disabled soldier was planned while still under the care of the government to rehabilitate him to a point where he could be a productive and self-supporting member of society. To do this it was necessary to enlist every industrial and educational factor possible as well as to develop our medical and surgical efficiency to the highest possible degree. It was also realized that some other plan of compensation must be devised to replace the old pension scheme. This last has been brought about by the creation of the war risk insurance and the federal educational board.

How well the plan as a whole will work out only time will tell, but I feel well assured that the medical profession has not failed either in its ability or its duty. In the physical reconstruction part of this plan the medical profession had its own particular problems to deal with. To be sure, medicine and surgery have made tremendous strides since the Civil War. No longer do typhoid, dysentery, gangrene and tetanus affect the causes of high mortality; their menace is gone. Sanitation has almost reached the plane of science. Asepsis and antisepsis have revolutionized surgery. These things alone would insure great improvement, yes, a marvelous improvement, over the results of fifty years ago. Nevertheless many problems arising in the surgical experiences of this war have provoked considerable discussion, and they are of interest to all of us. In thinking the situation over it seems to me that many of our surgical problems have arisen from the fact that we have had to deal with

conditions in the mass. Most of us had not been army surgeons. We had been accustomed to dealing with all sorts of conditions now and then, but we had not been compelled to fight and solve the problems of dealing with large numbers of the same kinds of injuries or diseases or infections together at one time. And as I think the matter over it seems to me that most of our surgical problems have been the result, not of inability to deal with the situation, but of the necessity of determining how best to deal with it.

*Bone Infections*—Probably the largest and most trying group of cases with which we have had to deal at Fort Des Moines have been the bone infections. Practically all were complicated with compound or comminuted fractures and many with displacements or malunion or deformity. I might say that in the course of my experience at Fort Des Moines, since last November, we have received between 500 and 600 bone infection cases. At once the question arose as to the treatment which promised the speediest recovery and the best results. Remember, we had never had to deal with compound infected fractures and osteomyelitis in large numbers. All of us had seen a few cases each year, but several hundred and each with its own individual problem and unloaded here within a few days or weeks, looked at least formidable.

During the work it was seen that infection was best controlled by the Carrel-Dakin treatment if the technic was correctly carried out and if the infected area was widely opened so that the fluid could penetrate every crevice and pocket.

Then the question arose as to whether or not the bone should be operated on while the Carrel-Dakin treatment was being carried out. And as many cases had bone deformities and malunion with the infection, in our experience we found that opening up fresh bone areas while infections were active prolonged the treatment. Therefore the rule was adopted that in such cases only such bones should be attacked as were obviously dead or were simply protruding fragments of bone which rendered the use of the Carrel-Dakin treatment of no avail. All resections and extensive sequestrectomies and excisions which required osteotomies were postponed until the infection had subsided and the sequestra had distinctly separated. I think the results have justified our conclusions, because we are operating every day upon numbers of bone infected cases which have been healed perhaps for many weeks or months, with only a small sinus leading down to a sharply differentiated and sequestered sequestrum which can be readily removed. And those cases are healing up promptly and very satisfactorily under

continuation of the Dakin solution for a week or two after operation.

*Nerve Injuries*—Another great task that has caused us considerable study has been nerve injury with paralysis. Many of these cases were complicated with fractures and deformities due to paralysis of the injured nerves of unparalyzed muscles.

How long should we wait before operation on cases of nerve injury with paralysis? That question is answered largely by the fact as to whether the case was infected or not. We have not operated upon any nerves without waiting six months to see if the nerve would regenerate spontaneously; and probably 65 to 75 per cent. of all nerve injury cases have regenerated—not all completely, but to some degree. The degree of regeneration taking place has depended upon the extent of injury, whether it was a partial division of a nerve, the development of a lateral neuroma, the burying of the nerve in scar tissue, or a complete section. It is a fact that some nerves completely divided will regenerate. But after waiting six months without signs of regeneration, and especially in the presence of signs of the reaction of degeneration electrically, those nerves have been traced up and re-united either by direct suture where the gap was not long, or by transplanting a section of a sensory nerve, or two or three sections of a sensory nerve, to fill the gap. By waiting until all infection has subsided we were in many cases able to operate upon both the fractured bone and the injured nerve at the same time, which is an advantage.

As regards nerve injuries it would be of interest to say that a certain percentage of nerves that seem perfectly healthy, after careful union and suture do not regain their power. In such cases a resort to tendon transplantation has helped to solve the difficulty. We have now at the hospital a number of patients with paralysis of the musculospiral nerve for section in which the nerve has been sutured, either on this side or in France, and in which regeneration has not taken place. We have one or two cases in which suture of the nerve was impossible on account of the length of nerve that had been destroyed. In these cases we have transplanted the flexor carpi ulnaris and radialialis from the flexor surface of the arm, attached them to the extensor muscles of the thumb and hand and find that this not only holds the hand up, but enables the patient to extend the fingers and get an excellent grasp. That procedure has, I believe, been used more extensively in Great Britain than here. In many cases we substituted tendon transplantation where nerve

suture did not seem to offer the best hopes of recovery.

*Joint Injuries*—Another interesting group of cases is that of joint injuries, almost invariably complicated with infection and sometimes with deformity due to contractures or ankylosis in malpositions. It is in this class of cases that the tremendous importance of infection is best seen. We can show you at the Fort Des Moines Hospital a number of cases of shattered joints—the joint thoroughly broken to pieces, injured in all its parts by bullets, and especially by machine gun bullets, in which that joint has recovered with a remarkable degree of joint motion. The same joint, infected, is hopeless so far as motion is concerned.

One of the problems that has come up with regard to these infected and injured joints has been what to do as regards restoration of the joint to a useful position. Remember that the controlling idea in managing any injured joint in which motion is liable to be lost, is to put that joint in the best possible position for future use. Whether that should be done while the infection is still present, or whether to wait until the infection has subsided as we do in the treatment of the long bones, was a problem. We have decided, and I think it is right, that where there is any motion in the joint at all at the time the patient is seen in the hospital, attempt should be made to restore the joint to a useful position. In other words, knees with extensive contractures, hands with the wrist-drop which renders the hand unusable, shoulders that have been injured and allowed to become fast in the side—those are corrected if possible immediately, the rule being to make the correction gradually and gently rather than to give the patient an anesthetic and correct the position of the joint at once, and that, too, has proven to be a wise conclusion. However, if there is any infection in the joint, motion of that joint will almost certainly be lost. We sometimes in these cases see recovery with slight motion following infection. But if the patient is going to lose the mobility of that joint it should be fixed in the best possible position for future use, and as a rule this should be done gradually, after the infection has all subsided. We frequently give the patient an anesthetic and correct the position at one sitting, putting the joint up in plaster of Paris that it may be completely immobilized. There is no other splint that will do it so well, and the immobilization is not only much more comfortable than when produced by any other apparatus, but the holding of the joint still for several days or a week after the anesthetic has been given and the joint forcibly moved tends to prevent the recurrence of infec-

tion. In infected joints where the infection was extensive, it has oft times been necessary to disregard all mechanical features and simply open up the joint freely until we have complete access to every section of the joint with the Carrel-Dakin irrigation tubes.

I should say a word here about the use of traction in these infected joints. One of the simplest ways of correcting malposition of a joint is by the use of traction, and the traction, in order to be effective, must be put on right. We have come to learn that one of the most useful of apparatuses in applying traction for the lower extremity and even in selected cases for the upper extremity, is the modified Thomas splint, which has been used so widely in all sorts of joint injuries on the other side particularly, as well as on this side for the treatment of fractures and infected joints. The apparatus must be applied in such a way that the traction will be continuous, and the traction should be exerted from the highest point possible in order to bring the traction to bear as closely to the joint as possible. And it is best to suspend the limb in such manner that the patient can move about in bed. In many cases it is advisable to use a Thomas traction splint for fractures of the humerus or elbow or even of the forearm, but this splint if used on the arm may sometimes be put on too long. There comes a time when traction is not as important as the position of the elbow-joint. Then the splint must be removed and the position of the elbow fixed.

Another thing is Buck's extension on the leg, but a Buck's extension put on a bent knee is not going to be efficient unless it is put on with the thigh flexed and the leg below the knee put in some fixed position. Then by gradually lowering the support upon which the leg rests the knee may be gradually, slowly, painlessly straightened out. To do that the foot of the bed must be lifted and usually counter traction made through the pelvis by a cord or sheet fastened to the head of the bed. In that way you can get the benefit of the full amount of traction.

As to the amount of traction that shall be applied in either of these methods, it has always been my custom to be guided by the patient's comfort. I do not believe that a traction sufficient to produce pain, or at least any great degree of pain, is desirable, because that in itself excites a muscular spasm which is pernicious, it is vicious and undesirable.

In cases of joint infections and deformities it is oft-times a question as to what is the best position in which to put the joint for future use. There are some very simple rules regarding that matter. In injuries about the wrist, and especially injuries

that are painful, the tendency of the joint is to remain flexed, and many cases of tendon injury or joint infection come back to us with the wrist in flexion. In these cases it is an invariable rule to put the wrist in extension as soon as possible, because if the motion of the wrist is impaired an extended wrist given a useful grip, and in many cases where the extensor tendons are lost it may be wise to ankylose and fix the joint by doing an arthrodesis to prevent this.

In the case of the elbow the best thing is to ask the patient what his occupation is. It makes a difference whether the man is in the insurance business, or whether he is a farmer and has to use the ordinary farm tools. In fact, the occupation will decide the angle of flexion. In many instances if the patient has a good arm on the other side, it is desirable to get a very acute flexion and the arm fixed up in this position until it gets well, because when the man has recovered he can then feed himself and button his collar; but if he has to use an arm with an obtuse angle it is difficult for him to do these necessary things. If he has the other arm left it does not make so much difference. We all have to think of the working conditions.

I have had under observation a man with both elbow shattered by gunshot injuries. In one elbow he has a little movement, in the other practically no movement. I find that his business is writing insurance, and his right arm must be a writing arm. Now, the tragedy there was that when he turned up at the hospital the rule for fixing all forearms in supination had been so vigorously carried out, that in this case the patient could not hold a pen. It was impossible to pronate the arm sufficiently to give him a working use of the hand. So that had to be done as a secondary operation.

In deformities and injuries about the shoulder, remember that the important point is to keep the arm abducted. We have had a great many gunshot injuries of the shoulder accompanied by nerve injury, impairing the function of the deltoid muscle; and unless that patient's arm is kept in abduction until the infection has subsided and you are able to determine how much use he is going to get out of the deltoid muscle, the contraction of the muscles of the axilla, the pectoral and subscapularis muscles, will become so strong that he will ultimately be unable to abduct the arm. An adducted arm is practically useless. An abducted arm if fixed is very useful, because he can allow his arm to drop at the side enough to make it inconspicuous, can dress himself, etc.

In injuries about the hip the rule is always abduct the affected hip. If there is any danger of

loss of motion in the hip-joint the leg should be abducted ten to fifteen degrees and held there until you know whether or not there will be motion. An individual with a short or stiff leg that is abducted can easily tilt the pelvis and bring the other leg over to it and walk without much of a limp, but if he has an adducted leg, if he gets well with the leg adducted as it invariably will be if left alone, then it is difficult for him to walk. And it is extremely annoying for other reasons.

In injuries about the knee we try to have the knee get well with a little flexion. We find that a person with the knee slightly bent so when he picks his foot up he can do so without hitting every obstruction on the sidewalk, can walk with more comfort and more spring.

In injuries about the ankle the only rule is to keep the foot up so that when it gets well the patient will not have a talipes equinus. In many instances we have had to divide the tendo Achilles to prevent a deformity, when the foot might have been fixed in dorsal flexion and held there during the entire period necessary for recovery. The patient in bed naturally extends his foot. The tendo Achilles and the muscles of the calf of the leg are the strongest about the leg. They have a tendency to contract, and when a patient gets well from injury to the muscles or bones of the leg he almost invariably gets well with the foot extended unless particular pains are taken to keep it up.

*Muscle and Tendon Injuries*—Extensive muscle and tendon injuries are still, after many months, sources of extreme concern. Go into the ward and you find a man with an injured arm. As you look at the arm you see a little red streak around the arm about a quarter of an inch wide; the swelling is gone, the skin looks normal, but he cannot extend his arm. Unless he has been wearing a splint it will be flexed. He will say he has tendon injury, and he probably has. In attempting to operate upon those tendons you immediately find that the whole area underneath the arm, involving perhaps all the tendons and muscles of the flexor surface, is one mass of scar tissue. The little red line on the arm which shows where the beginning infection took place is no criterion of the condition underneath, and today we are confronted by dozens of cases that will some day come up for operation, in which the infection has been the important and really the destructive element. It is not the destruction of the tendons alone, but the binding down in a mass of scar tissue of the tendons and muscles so that they cannot function. And here comes another point: We have found by actual experiment that in about seven out of ten cases that we have operated upon specimens of scar tissue, will develop

bacteria. In other words, seven-tenths of these cases, months after healing has taken place, will show bacteria in the culture-tube. And that fact combined with several unfortunate experiences early in the game has led us to be extremely cautious in opening up any of those areas where extensive scar tissue exists for fear of lighting up the old infection. I remember a man with loss of motion at the wrist who had a tendon injury of the extensors. After several months I found that he had a little motion, and I said, his wounds are healed up, and preparatory to doing an operation on the tendons we had better cock up the wrist and hold it there for two or three weeks and permit the tendons to contract. I gave him just anesthetic enough to allow me to dorsoflex the hand, and inside of a week the entire arm was reinfectd. It had to be opened up in this place and that place and Dakin tubes put in, and yet that arm had been healed before we attempted to even move the wrist. In such cases it behooved us to lay down a rule not to operate on any old scars until pretty well assured that there was no danger of lighting up the infection.

*Amputations*—Out here at Fort Des Moines we have had about five hundred amputations, and it is a startling problem to see even two hundred amputation cases in one group. And nearly all of these amputations were guillotine operations and infected; that is to say, they were when they came to us. A guillotine operation is simply a cutting off of the arm or leg in a straight plane, making no preparation for flaps or anything else except for taking care of the infection, and at the same time saving as much as possible of the skin and bone. The guillotine operation in infected cases is ideal. It has proven that it has its place, and the guillotine operation properly cared for will oft-times yield flaps long enough to cover the end of the bone after healing has taken place. But it seems that during the time infection is active traction must be put on the skin so to keep up a constant pull and prevent the retraction that takes place immediately after operation.

The after-treatment of these amputation cases is limited to healing and shaping a suitable stump and the fitting of the limb, when entirely healed, with a provisional artificial limb. And the hospital at Fort Des Moines was early designated as an amputation center and has proven one of the most interesting features. There were set up well equipped work shops in which all sorts of work in connection with brace making and fitting men with artificial limbs was carried on.

Early in the game, when these cases came back in large numbers and we found ourselves surrounded with 150 amputated stumps that were in-

fectd, we thought we must get busy and shape up those stumps and get the end of the bone ready to cover with a flap, and if necessary make a flap with which to cover it. But if there is one thing we have learned as a result of the amputation problem it is that those cases should be left entirely alone until infection has ceased.

One of the things that has come into our medical language as a result of these amputation cases is what is known as deep edema. We have seen our stumps heal up, we have prepared to operate upon them, and found that they were still sensitive deeply underneath the skin and that around the bone could be felt an exudate. We learned by experience that, that exudate means a periosteal infection, and to operate upon a stump while there is still a deep edema surrounding the bone, while the stump is sensitive, while there are any signs of infection, almost invariably vitiates the result, we see the infection light up again and the flap may partially or entirely slough off. Today we are waiting for those cases to heal so that we can either dissect out the scar and bring a flap over the end of the bone, or, if necessary, take off part of the bone and make a new flap, the principle being to make a skin-covering for every case and to sacrifice as little bone as possible. And with the technic that has been developed as a result of caring for and operating upon four or five hundred amputations, I have been astonished at the ease with which flaps can be made in many instances, and in most instances without the sacrifice of bone. Two and one-half to three centimeters of bone has been the most we have had to take off in any amputations of the thigh, and to me that was a marvelous revelation.

*Physiotherapy*—I cannot stop without saying a word about the physiotherapeutic branch of our treatment. As a result of our experience at Fort Des Moines we have learned that massage, hydrotherapy, electro and physiotherapy of all kinds, are going to have a larger place in our method of treatment of all sorts of bone, muscle and joint injuries than we have ever believed they would have. We have been astonished at the results which have been obtained in many cases in the physiotherapeutic department by massage, electricity and hydrotherapy in helping us to get rid of the exudation that occurs, softening up the tissues and getting them ready for operation, and in helping us to mobilize slowly and gently what promised to be very stiff joints. I cannot say enough in commendation of our department of physiotherapy, for it has produced some remarkable results.

*Educational and Vocational Reconstruction*—At this point I wish to call attention to the fact

that the surgical situation in France, speaking only of the American soldier, has differed from the situation as we have seen it here in at least one vitally particular thing, and that is the time element. A large percentage of the cases treated over there were minor or moderate injuries or infections which could be quickly cleared up and disposed of, while the obviously chronic cases which were permanently disabled were soon evacuated and sent back to America. In other words, the American surgeon in France has been dealing largely with the acute phases of badly injured cases, while on this side practically all our work and problems have had to do with chronic cases and prolonged treatment. This difference is significant when we come to consider the effect upon the mental attitude of both the patients and the surgeon. In talking with patients in the ward I have been struck by the fact that a large percentage of them remained in France only a short time after they were injured. In other words, having been designated as cases which were hopeless for military service, they were transported to this country as soon as they could be properly prepared for transportation and the care incident to transportation. And the very feature of our having to do with chronic cases has been a very important one in the matter of reconstruction. Let me tell you why: He comes to us depressed. On this side he realizes that he has a permanent injury and is likely to be permanently disabled. He is near home, he wants to get home, he becomes homesick, and the military discipline having been relaxed he has relaxed also. In other words, the entire morale of the patient begins to go down, and it is, therefore, a very different problem dealing with 350 men in bed with infected wounds which they know they are going to be months recovering from, within 150 or 200 miles of their home folks, than it is to deal with a man immediately after he has been injured, while the conditions are all acute and surrounded with the stimulating atmosphere of a battle front. And right there is where the educational and the vocational side of reconstruction has been of great help to us. I haven't time to go into that in detail. The literature which has accumulated on my table relative to the simple educational and vocational phases of re-education, has been too great for me to read. But I want to say this: That we would have been in dire straits to maintain the morale, to maintain control of our patients, to keep up encouragement enough to make them realize that they were going to get better and be made well and be made useful, had it not been for educational and vocational aides. The workers in this field have been most enthusiastic, untiring,

interested in their duties, and we see every day the great advantages accruing from their labors. If you were to go into one of our wards you might see some man perhaps forty years of age making a little basket, or he might be doing some other trivial thing. Go into the workshop and you will see patients cutting out grotesque toys and painting them absurd colors, and you say, "Does that man expect to make a living at that after he gets through?" Not at all. That method of treatment is for two purposes: To enable him to use first the affected muscles and joints. He usually begins in bed, at which time he is taught to do some trivial thing, so trivial that it sometimes is laughable to see men sitting in bed putting beads on a string or making bead belts or something that looks like child's play. But let me tell you that when that man realizes that he has done something, his first impulse is to do it better, and when he has finished his little job with awkward and disabled fingers he immediately wants to tackle another job. Then he begins typewriting, and when he gets his wooden leg on or his arm is healed he goes to the shop and uses his hand in learning to do some new and useful thing. It is a method of keeping up the morale, and at the same time helping them to restore the ability of the joint and muscles to do something. I have seen men graduated from stringing beads to weaving and from that to typewriting and from there to the carpenter shop, and some of the best men we have in the implement shop today are such patients. Besides that we have a printing office, we have a motor school where they are taught all about the construction and handling and repairing of automobile engines; we have a tractor school, we have a chicken farm, we have a course in animal husbandry with a herd of cattle; in fact, we have pretty nearly all the occupations out at Fort Des Moines that a man can do if capable of doing it. And some have come from the infant class, beginning with the little things when they were so depressed they could not read, and we had to keep their minds busy. And you have no conception how improvement is stimulated by occupation. Therefore, it is impossible for me to say too much in favor of the educational and vocational departments in helping us to put these patients where they may be useful, active, self-supporting members of society.

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#### LOW DEATH RATE

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The New York health department's records show that the city never had a weekly death rate in the month of July as low as in the week ended July 26th. There were 1,021 deaths, a rate of 8.87 in 1,000. The rainy weather is credited with the decrease.

## BLOOD TRANSFUSION AS EMPLOYED IN AN EVACUATION HOSPITAL IN THE ADVANCE ZONE A. E. F.\*

L. E. SHAFER, M.D., Davenport

Blood transfusion as employed in the hospitals of the U. S. Army for the treatment of hemorrhage following wounds was used for the first time in the early spring of 1918, at the time of the Siechprey attack. At that time Evacuation Hospital No. 1 was the only American surgical hospital near the front and they received all the wounded from this attack. Among this lot of wounded were several that had lost a considerable amount of blood and three that were practically exsanguinated. It became evident at once that in the advance surgical hospitals facilities must be devised whereby these men who had lost large amounts of blood might receive the benefits of blood transfusion. In this first lot ten transfusions were done. Donors were selected irrespective of group. Immediately following this with the cooperation of the Central Medical Department Laboratory, a standard apparatus was devised which was furnished to all of the advance hospitals together with a quantity of known group serum, for grouping purposes, and sodium citrate in measured quantities.

In the use of blood transfusion in the advance hospitals there were many handicaps. As assistants the untrained medical corps man was the only assistant available. Usually one medical officer was assigned to the position of blood transfusion officer and he was allowed one medical corps man as an assistant. Laboratory facilities were poor and the patients admitted were not only suffering from the loss of blood but also from exposure to cold and rain and frequently from the lack of nourishment.

The method employed was the sodium citrate indirect method, as it seemed better to meet the requirements. It is devoid of the dangers of the direct method. It is more rapid. Blood could be collected in the evacuation hospital and taken forward to the field hospitals for the treatment of non-transportable cases which was frequently necessary, and lastly the apparatus and technic was non-complicated.

The apparatus used was very simple, of the gravity type, consisting of a one liter bottle with two double perforated rubber corks. One cork was fitted with two pieces of short glass tubing, called the "short element," the other with a short and a long piece of glass tubing, the long piece reaching nearly to the bottom of the bottle when

the cork was inserted, called the "long element." Two pieces of rubber tubing, one four inches long and the other four feet, a large caliber needle, a canula, a Potains aspirating syringe and an ordinary blood-pressure apparatus.

Donors were selected from the enlisted personnel of the hospital and from the number of patients who were admitted on account of slight wounds. Laboratory facilities were not available to have Wassermanns done so it was necessary to rely entirely on the donors statement as to whether he had syphilis. He was also questioned as to any previous malarial infection. No individual was used who had an infected wound or who had a temperature above normal. Our supply of donors was almost unlimited. The list of classified available donors frequently reaching the 300 mark.

All donors were divided into four groups as described by Moss<sup>1</sup> based on the agglutinating activity of one individuals serum on the red blood corpuscles of another. The method used was the macroscopic method as described by Vincent<sup>2</sup>. This test is based on the fact that agglutination always precedes hemolysis and is a test for agglutination. Moss showed that the blood group to which an individual belonged could be determined by an agglutination test with his red blood corpuscles and the serum from individuals known to belong to group No. 2 and No. 3.

The macroscopic test as used was made by the means of two citrated serums, serum No. 2 and serum No. 3, obtained from the blood of individuals belonging to groups No. 2 and No. 3. To prepare the serums 20 c.c. of blood are collected from each individual under sterile conditions. When coagulation has taken place and the clot contracted, the serum is pipetted off into sterile containers and sufficient sodium citrate is added to make a citrated serum of 1.5%. A preservative in the form of 0.25 per cent. tricesol is added. The serum is citrated to prevent the coagulation of the few red blood cells remaining which would make it difficult to determine the presence or absence of agglutination. In making the test all that is required are the two known group serums and a glass slide. A drop of group No. 2 serum is placed on the left half of the slide and an equal amount of group No. 3 on the right half. The individuals ear or finger is punctured and a small drop of blood is transferred on the point of the knife to each of the drops of serum in turn and thoroughly mixed by stirring. The blood should be transferred before coagulation has taken place

\*Presented at the Sixty-Eighth Annual Session, Iowa State Medical Society, Des Moines, May 7, 8, 9, 1919.

1. Moss, W. L., Bulletin of Johns Hopkins Hospital, Volume xxi, page 63, 1910. Bulletin of Johns Hopkins Hospital, Volume xxii, page 238, 1911.

2. Vincent, J. A. M. A., April 27, 1918, page 1219.

and care should be taken to avoid mixing the two serums. If the reactions are positive, the agglutination will appear within a minute's time. If negative, the corpuscles will make a uniform suspension in the serum.

If the reaction is positive with both group No. 2 and No. 3 serums, that is the corpuscles are agglutinated in both cases, it indicates a group No. 1 blood. If the reaction is negative in both serums it indicates a group No. 4 blood. If negative with serum No. 2 and positive with serum No. 3 it indicates a group No. 2 blood. If positive with serum No. 2 and negative with serum No. 3 it indicates a group No. 3 blood.

Except in those cases where the risk of delay is greater than the risk of hemolysis, the compatibility of the blood of the recipient with that of the donor should be determined before blood transfusion is performed. Hemolysis of red blood corpuscles does not take place between members of the same group, therefore when possible the donor and the recipient should belong to the same group. However it has been shown that group No. 4 individuals can be used as universal donors without danger of hemolysis, based on the fact that certain red cells are protected by antihemolysin. This fact was very valuable to us in the treatment of the non-transportable cases in the field hospitals, where donors were not available. In these cases blood was collected from group No. 4 donors and carried forward and given without determining the group of the recipient.

The amount taken from each donor was 600 c.c. If more than this amount was required a second donor was used. This amount was set because for the most part the donors were individuals on a duty status and within twenty-four hours after the taking of this amount they were able to return to duty. If 700 to a 1000 c.c. were taken they were frequently incapacitated for a week or more.

In collecting the blood from the donor there are several points that are important to observe to make the operation successful.

First—The tourniquet applied to the arm should be adjustable in order to meet the change in blood-pressure as the blood is withdrawn. A common blood-pressure apparatus was found to be the most satisfactory. It is applied to the upper arm and pumped up to about 80 m.m. The pressure can be very easily changed at any time during the operation if necessary.

Second—The needle used should be sharp, one to one and one-half inches in length and of a large caliber, 12 to 16 gauge being the ones most commonly used. The needle should be inserted into the vein pointing distally.

Third—The rubber tubing connecting the nee-

dle with the bottle should not be longer than four inches. This will allow for constant agitation of the bottle throughout the operation.

Fourth—A Potains suction pump applied to the other glass tube of the short element and a partial vacuum maintained throughout the operation will cause the flow of blood to be more rapid and will lessen the danger of coagulation taking place in the needle and the tubing.

*The Treatment of the Blood*—The blood is drawn into 100 c.c. of normal salt solution containing 2.45 grams of sodium citrate, which is sufficient to make a 0.35 per cent. solution when 600 c.c. of blood are added. This amount was found to be non-toxic and was more satisfactory than 0.25 per cent. solution which is commonly used. The citrated blood can be safely kept if placed in an ice box for eighteen hours. If kept for a longer period a microscopic count should be made to determine whether or not the breaking up of the red cells has taken place to any great extent. If the red cell count has dropped below 3,500,000 per. cu. m.m. it is advisable to make another collection. The temperature of the solution at the time of infusion should be as near the body temperature as possible.

The technic of administration is very simple. The long element is inserted in the bottle and the canula is connected to the long glass tube by the four foot piece of rubber tubing. The flow is started by exerting a positive pressure through the short glass tube. The rate of flow is regulated by either elevating or lowering the container. The time consumed in the administration of the 700 c.c. of solution should be about 20 minutes. Usually in the cases that really need blood transfusion the veins are collapsed and it is advisable to cut down on the vein and insert a canula rather than to attempt inserting a needle through the skin. This can be done very quickly and will certainly obviate a certain amount of difficulty as well as embarrassment.

Blood transfusion as employed in the advance hospitals, was confined to the treatment of patients suffering from wound hemorrhage, wound shock and anemia following streptococcus haemolyticus infections. In all some 600 cases were treated. Records were kept on 280.

*Wound Hemorrhage*—The results obtained by the use of blood transfusion in the treatment of wound hemorrhage were most gratifying. The most important point in the treatment of these cases is: What are the indications for blood transfusion? Based on the study of 182 cases the following conclusions were drawn: (a) blood transfusion is indicated in those cases with a systolic pressure below 85 associated with a red cell



CAPT. C. N. O. LIER



count below 4,000,000 within four hours after the injury, without the positive evidence of the loss of any great amount of blood. (b) it is indicated in those cases where there is positive evidence of the loss of a moderate or great amount of blood associated with the condition of shock, irrespective of the blood count, or the blood-pressure.

The time at which the transfusion is to be given, depends entirely on the character and location of the wounds. If hemostasis is uncertain or if the bleeding point is not under control, it is best to wait until the patient is on the operating table, so that any fresh hemorrhage may be controlled promptly by the surgeon.

The following cases will illustrate the type of cases with which the transfusion officer had to deal and the pleasing results that were obtained.

Private G.—Injured 5 a. m. August 20. Shell wound of left leg. Given first aid within fifteen minutes. Tourniquet applied above the knee. Admitted to the hospital at 9:30 practically moribund; left leg almost shot away two inches below the knee joint. The tourniquet had become loosened and there was a large pool of blood on the floor of the ambulance. It was impossible to obtain his pulse at the wrist. The systolic pressure was between 35 and 40. The diastolic could not be determined. Transfusion of 600 c.c. of citrated blood immediately after the tourniquet was reapplied. There was a marked change in the patient's condition, his pulse became palpable at the wrist, systolic pressure 70, diastolic 35. He developed a marked delirium, 11 a. m. a second transfusion was done of 600 c.c. His delirium ceased and he became quiet, systolic pressure 85, diastolic 50, pulse 144. At 12:30 p. m. a third transfusion of 600 c.c. was done at the time of operation. Amputation was done two inches above the knee joint. At the time he left the operating room his pulse was 126, systolic pressure 100, diastolic 70. There was no reaction and his period of convalescence was uneventful.

Lieutenant M.—Wounded 2 p. m., August 3. Admitted to the hospital 9 p. m. the same date. G. S. W. of abdomen, penetrating, wound of entrance 4 c.m. to the right of the umbilicus. Very restless and at times irrational. Pulse 140, systolic pressure 80, diastolic 55. Red blood count, peripheral, 3,800,000. Taken to operating room immediately and 600 c.c. of citrated blood given during anesthesia. Laparotomy showed two perforations of the small intestines and one of the ascending colon and the division of one of the large branches of the superior mesenteric artery and an abdomen full of blood. Immediately after the operation pulse 140, systolic pressure 100, diastolic 60. The following morning pulse 120, systolic pressure 105, diastolic 70. The patient's convalescence was complicated by a fecal fistula. He was transferred to a base hospital August 27 in good condition.

*Wound Shock*—Sixty cases in all were treated

by blood transfusion. The improvement in these cases was not so marked as in those cases of hemorrhage. In fact in some of the cases it was rather disappointing. Later it was discontinued entirely in the treatment of shock not associated with hemorrhage and was replaced by the infusion of a 7 per cent. gum acacia solution in physiological salt as was advocated by Bayliss<sup>3</sup> or Bayliss's solution with the addition of 4 per cent. sodium bicarbonate as was suggested by Cannon<sup>4</sup>. The following cases will illustrate the results of the uses of blood transfusion in comparison with that of Bayliss's solution with sodium bicarbonate:

Private R.—Injured 8 a. m., July 24, by being buried in the entrance of dugout, sustaining a compound fracture of the left femur in the upper third and a simple fracture of both bones of the right leg. Admitted to the hospital 1 p. m. of the same day. Pulse 144, temperature 96½, systolic pressure 85, diastolic 40; 1:30 p. m. operation begun and at the same time 600 c.c. of citrated blood was given. Operation ended at 2:30 p. m.; pulse 140, systolic pressure 105, diastolic 60. On the following morning the patient seemed fairly bright. In the afternoon he began to complain of air hunger and was very restless. Pulse 148, systolic pressure 90, diastolic 50; 500 c.c. of Bayliss's solution with 4 per cent. sodium bicarbonate given. Immediately following there was almost a miraculous improvement; one hour later he was resting very comfortable. Pulse 120, systolic pressure 105, diastolic 65. His condition remained good until the third day when he developed a gas infection of the thigh wound and died on the fourth day.

Sergeant L.—Injured 11 a. m. August 14. Admitted to the hospital 5 p. m. of the same day suffering from multiple shell wounds of the right thigh, right leg and right arm. Compound fracture of the right femur in the middle third. No evidence of loss of any great amount of blood. Pulse 140, systolic pressure 80, diastolic 45, temperature 96, respiration 28, red blood count 6,000,000 hb. 100 per cent; 5:45 p. m. 500 c.c. of Bayliss's solution was given, 6:30 p. m. sent to the operating room. Pulse 120, blood pressure, systolic 100, diastolic 65. The operation lasted one hour and thirty minutes. Immediately following, pulse 140, systolic pressure 90, diastolic 45. At 9:30 p. m. 300 c.c. of Bayliss's solution was given. The following morning the patient said that he felt fine. Pulse 110, systolic pressure 110, diastolic 70. In seven days he was transferred to a base hospital in excellent condition.

*Anemia Following the Streptococcus Hemolyticus Infections*—The indications for blood transfusions based on the observations of thirty-eight cases is that if the red blood count drops below 3,000,000 these cases will show a marked improve-

3. Bayliss, Proc. Royal Soc. 1916, 89, 380.

4. Cannon, J. A. M. A., March 2, 1918, page 618.

ment. The improvement that is so marked in some of the cases is probably due to three factors, (a) to the replenishing of the blood supply; (b) to the addition of additional protective substances to the patient's circulation; (c) to the inhibiting action of the sodium citrate on the growth of the streptococcus hemolyticus as shown by experimental work done in the Central Medical Department Laboratory.

After the transfusion these cases will invariably have severe reaction which lasts for two or three hours and comes on about two hours after the transfusion is done. Following this it is not uncommon for the patient's temperature and pulse to fall within normal limits. The following case will illustrate the typical hemolytic streptococcus infection and the results obtained:

Corporal T.—Admitted June 10. Shell wound of the left thigh with a compound, comminuted fracture of the left femur. The ordinary debridement was done and the thigh placed in a Thomas splint with extension. June 13, streptococcus hemolyticus organisms were demonstrated in the wound by culture. June 15, severe chill with a temperature rise to 105. June 17, the organisms were found in the blood. Up to June 26, the daily temperature range was from 99½ to 105 with repeated chills. A red blood count at this time showed 2,300,000 to the cu. m.m. hb. 65 per cent. At 4 p. m. on June 26, 600 c.c. of citrated blood was given. One hour later the patient had a severe chill with a temperature rise to 105½. The following morning temperature 98½, pulse 90. The temperature rose in the afternoon to 100½. The patient said that he felt like a different man. June 29, his red blood count was 3,200,000, hb. 80 per cent. July 3 the red count was 3,000,000, hb. 75 per cent. And July 7 the count had dropped to 2,800,000 when another 600 c.c. of citrated blood was given followed by another severe reaction. Following the reaction the temperature never rose to above 100 and the blood count steadily increased. His further convalescence was uneventful up to the time he was transferred to a base hospital on July 24. At that time he had been afebrile for ten days and his red count was 4,300,000.

#### CONCLUSIONS

1. Blood transfusion as performed by the sodium citrate method is a safe and simple procedure.
2. In cases of wound hemorrhage associated with the condition of shock it is the ideal treatment.
3. In cases of the hemolytic infections resulting in anemia it is a very valuable asset to the treatment.
4. In cases of wound shock not associated with hemorrhage the results are not as good as can be expected with the use of a 7 per cent.

gum acacia solution with 4 per cent. sodium bicarbonate.

#### Discussion

**Dr. Frank J. Rohner**, Iowa City—We not only have had the pleasure of listening to a very interesting and instructive paper, but have also had the opportunity to see a real war hero. Dr. Shafer, like all our heroes, is very modest. I noticed that nowhere in the course of his paper is the capital letter "I" used. I know that the few transfusions mentioned by Dr. Shafer are but a small percentage of the hundreds that he has personally performed. Not all his time was spent behind the lines where it was safe doing transfusions, because he returns with not only two service stripes, but two wound stripes and the envied Croix de Guerre. There is no doubt but that transfusion has come to hold a permanent place in the therapeutics of hemorrhage. I think that this is generally conceded. In shock its value is doubtful, like many other measures employed in shock. In fact, Bayliss's solution or some solution of proper viscosity seems to take the place of blood even better than blood itself. As to its efficiency in combating infection, until it has been employed in more cases its value is not proven. I might mention that in oozing hemorrhages, for instance in so-called bleeders, in which persistent hemorrhage occurs following extraction of a tooth or removal of tonsils, or in those cases that are prone to bleed because of long continued jaundice, transfusion seems to be almost specific. In jaundice cases where you anticipate bleeding, in some cases of continued oozing or capillary hemorrhage in so-called bleeders, an intramuscular injection of whole human blood may suffice to prevent or stop the hemorrhage. I feel it is preferable to horse serum.

**Dr. Shafer**—The only thing I can say in closing the discussion is this: That the transfusion of blood by the indirect, or sodium citrate, method, is so simple a procedure that it should be more frequently used in the treatment of conditions that are commonly seen, especially in those conditions of chronic infection associated with anemia. The technic of grouping is so simple that it can be done by any medical man without an extensive laboratory training. It requires only a minute's time by the macroscopic method. As far as the technic of transfusion is concerned, there is no more to it than the simple infusion of salt solution. The entire operation, grouping and withdrawal of the blood and transferring it to the patient, can easily be accomplished in twenty minutes.

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#### THE EFFECT OF THE EXCITEMENT OF WAR IS PRODUCING BASEDOWS DISEASE

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G. Etienne and Richard have observed that the emotions excited by war at the front was attended by an increase in the frequency of exophthalmic goitre among soldiers.—*La Press Medical*.

STATISTICS OF REJECTIONS AND  
THEIR CAUSES IN THE RECENT  
DRAFT\*

CHARLES S. GRANT, M.D., Iowa City

Before reading this paper, I wish to say that the entire paper is based on the "Second Report of the Provost Marshal General to the Secretary of War" and in some instances I have copied him exactly.

It is impossible in a paper of this length to do full justice to a subject so extensive as this one, so I have tried to select such items from the report of the Provost Marshal General as will be of the most interest to us as Iowans. A statement concerning the medical personnel of the selective draft may be of interest. We had, first, the medical member of the local board whose duty was to examine the registrants as to their physical qualification; second, the medical advisory board, who were specialists in different lines, whose duty it was, to examine such registrants as appealed from the decision of the local boards, and also, to examine those men referred to them by the local medical advisor; next came the medical member of the district board who advised that board on the evidence submitted by the registrant, the government appeal agent, or the local board in an appeal from the action of the advisory board.

Men, after reaching camp, were re-examined by the army surgeons and those, who in their opinion, were unfitted for army life were rejected or discharged and sent home. Some interesting things were brought to light in these examinations. I wish here to mention one item which has caused a great deal of comment, and that is the reason why so many men accepted by the draft officials were rejected by the army examiners. The principal reason for this was that in June, 1918, a new set of physical standards were adopted and promulgated to draft boards but these standards were not issued to any army examiners until a much later period, consequently two standards prevailed, and as a result, it looked as though the local examiners were lax in their work. Another cause for this condition was that in most cases the army examiners were men of special training along various lines and had much more time to spend on each draftee. Still another reason was that in many cases the local examiner, who wished to be absolutely fair to the government and who was instructed, that when he was in doubt he must make a decision in favor of the government, sent men to camp whose physical qualifications were doubtful. In this connection,

the following statement of policy by a Pennsylvania local board may be of interest:

Our rejections from the beginning to the end amounted to 7 per cent. rejected at camp. This percentage would have been smaller had it not seemed expedient in many cases to send certain men, even though we felt satisfied that they would be rejected. This was done in a number of instances in order to satisfy a critical public, on the one hand, and in other instances, in order to secure the men from any stigma; in other words, to give them a better discharge than a local board discharge would amount to in the eyes of the general public.

I am of the opinion that this condition prevailed generally and is the explanation for the following statement in the Provost Marshal General's report, page 162:

Oddly enough, the camp rejections were largely for obvious defects, many of which, it would seem, might have been readily apparent to the examiners of local boards. Obvious defects accounted for over 50 per cent. of camp rejections. Among these were deformities, flat feet, discharging ears, poor physique, defective mentality, hernias, loss of teeth, and varicose veins.

The percentage of men rejected at camps for the period from December 15, 1917 to October 15, 1918 was 8.10 per cent. which is higher than the camp rejections in 1917 which was 5.8 per cent. Percentages of rejections by local boards in 1917 was 29.11 per cent. Percentage in 1918, groups B, C and D was 29.59 per cent.

The following was the manner of grouping according to physical qualifications:

**Group A**—Composed of men who are vigorous and without any physical defect which might interfere with the full performance of military duties. These men conformed to the requirements implied by the following words, quoted from the standards of physical examination, "to make a good soldier, the registrant must be able to see well; have comparatively good hearing; his heart must be able to stand the stress of physical exertion; he must be intelligent enough to understand and to execute military maneuvers, obey commands and protect himself; and must be able to transport himself by walking as the exigencies of military life may demand.

**Group B**—Made up of individuals who possessed certain physical defects, diseases, or abnormalities which rendered them unfit for service, but which conditions were capable of cure by treatment, surgical or otherwise, whereby the registrants might be fitted for general military service. Group B is therefore known as the "deferred remediable" group.

**Group C**—Contained those men who were physically substandard for full military duties, but who were capable of rendering services of value to the military establishment in vocations which did not impose too great strain.

\*Presented at the Sixty-eight Annual Session, Iowa State Medical Society, Des Moines, May 7, 8, 9, 1919.

**Group D**—Contained those who were found to have conditions which unfitted them for military service.

During the first draft these groups did not apply and many men were excused from duty, who were able, after proper surgical or medical treatment, to do full army duty. Later this was changed so that many of these men were utilized. The men excused in the first draft were not wholly excused, however, as they were brought back for reexamination later and many found their way into the army. The following table 49 is of interest.

Table 49—Physical Groups Compared

	Number	Per Cent Registrants	Per Cent Examined
1 Total registrants Dec. 15, 1917 to Sept. 11, 1918 due to be classified .....	9,952,735	100.00	.....
2 Not physically examined.....	6,744,289	67.76	.....
3 Examined physically Dec. 15, 1917 to Sept. 11, 1918.....	3,208,446	32.24	100.00
4 Fully qualified (Group A).....	2,259,027	.....	70.41
5 Disqualified partly or totally.....	949,419	.....	29.59
6 Placed in Group B.....	88,436	.....	2.76
7 Placed in Group C.....	339,337	.....	10.58
8 Placed in Group D.....	521,606	.....	16.25

*"Group B Remediables"*—This group at first included among others, those having bone and joint deformities, hernias, benign tumors, large hemorrhoids, varicoceles, hydroceles, and strictures. Although arrangements were made by hospital authorities and medical men in many states for having such defects corrected without expense to the registrant, comparatively few offered themselves. The group thus sheltered many who were capable of rendering immediate military service in a limited capacity, and general military service after the correction of their defects. It was proposed to induct these registrants, and to have their defects corrected at army hospitals, but the army hospitals lacked capacity for the purpose. Since the group constituted an important reservoir of man power and since the presence of such individuals in communities proved to be local sources of discontent, the great majority of those in the group were made available by the standards of physical examination (P. M. G. O. Form, dated September 27, 1918) which directed that they be transferred to Group C. Thereafter, Group B was restricted to drug addicts, to those having deformities which might interfere with the wearing of a uniform and to a few other special conditions. (P. 153, 2nd report P. M. G.)

Table 50—Military Status of Group C Men

	Number	Per Cent of Group C Placed	Per Cent of Group C Called
1 Total Group C men Dec. 15, 1917 to Sept. 11, 1918.....	339,377	100.00	.....

2 Number not yet called by Sept. 11, 1918 .....	211,022	62.18	.....
3 Number individually inducted....	20,000	5.89	.....
4 Number called to Sept. 11, 1918..	108,355	31.93	100.00
5 Accepted at camp.....	91,867	.....	84.78
6 Rejected at camp.....	16,488	.....	15.22
Two-thirds of this group were never inducted. (P. 154 P. M. G. report.)			

In the number of men placed in Class A, Iowa ranked 14th with 77.13 per cent. The two highest were Oklahoma with 82.32 per cent. and Arkansas with 79.02 per cent. The two lowest were Rhode Island with 53.68 per cent. and Arizona with 55.03 per cent.

The following showing the percentage of rejections at the principal camps is of great interest to us, because Camp Dodge where most of our boys were sent, shows the lowest percentage, which speaks well for the examinations made by our local examiners. These figures are taken from Table 58.

P. M. G. report No. 2:

- At Camp Custer 11.88 per cent. were rejected.
- At Camp Grant 9.65 per cent. were rejected.
- At Camp Lewis 8.74 per cent. were rejected.
- At Camp Riley 7.85 per cent. were rejected.
- At Camp Taylor 5.25 per cent. were rejected.
- At Camp Dodge 4.15 per cent. were rejected.

Table 59 P. M. G. report shows the following percentage of rejections from the following eight states:

- Illinois 7.83 per cent.
- Indiana 6.19 per cent.
- Iowa 3.43 per cent.
- Kentucky 6.15 per cent.
- Michigan 11.90 per cent.
- Minnesota 6.27 per cent.
- North Dakota 4.04 per cent.
- Wisconsin 10.56 per cent.
- In this table Iowa leads with North Dakota a close second.

The following percentages for causes of rejections by local boards and camp surgeons and for discharges from the army of recently inducted men, as applied to Iowa, is taken from Table, Appendix 60 A, P. M. G. report, N. 2:

- Men examined from Iowa 14,670.
- Alcohol and drugs .2 per cent.
- Bones and joints 13. per cent.
- Developmental defects 9.7 per cent.
- Diseases of digestive system .8 per cent.
- Disease of ears 4.5 per cent.
- Pathological flat foot 3.8 per cent.
- Genitourinary (venereal) .4 per cent.
- Genitourinary (non-venereal) .8 per cent.
- Heart and blood-vessels 14.2 per cent.
- Hernia 6 per cent.
- Mental deficiency 5.9 per cent.
- Nervous and mental disorders 3.9 per cent.

Respiratory, tuberculous 6.8 per cent.  
Respiratory, non-tuberculous 1.5 per cent.  
Diseases of skin 5 per cent.  
Teeth 3.1 per cent.  
Disease of thyroid 1.7 per cent.  
Tuberculous, non-respiratory .9 per cent.  
All other defects 5. per cent.  
Cause not given 2.1 per cent.

In this paper there is not time for comparison with other states, but Iowa ranks well up in the list of healthful states.

To my mind, one of the most interesting facts brought out by these figures is the very low percentage of alcohol and drug addicts, contrary to our pre-conceived ideas on this subject, Iowa shows only .2 per cent. The highest is Delaware with 5 per cent, the next is New York with only 1.7 per cent., California has 1.5 per cent., while eight states show only .1 per cent.

Out of a total of 467,694 cases of rejections, only 2,007 rejections, or discharges for the above named conditions cited were found, P. 167, P. M. G., No. 2.

The P. M. G. gives the following study from a selected group of 556 drug addicts as to their occupations.

Teamsters, drivers and chauffeurs constituted 12.8 per cent. of the whole number.

Laborers 11.7 per cent.

Waiters and hotel servants 8 per cent.

Bookkeepers and office assistants 7 per cent.

Thus 40 per cent. of the whole number were included in the occupations named. From this group of 556 addicts, 311 admitted that they were addicted to morphine; 118 cited heroin; 54 used two or more of the usual drugs; 72 did not state the drug; only one individual alleged cocaine addiction.

Another interesting fact is the low percentage of venereal diseases found worthy of rejection. These figures, however, do not show the total percentage of cases of gonorrhea found as a great many of these cases were accepted under orders, but it does show that syphilis is less common than we supposed.

An interesting topic touched on by the Provost Marshal General is the one of malingerers. I quote from his report. "Malingers may be divided into three general groups: (a) Real malingerers with nothing the matter with them, who injure themselves, or make allegations respecting diseases or such conditions as drug-taking, or who counterfeit disease with full consciousness and responsibility; all for the purpose of evading military service. Many of these have been coached (a) Psychoneurotics, who are natural complainers and try to get out of every disagree-

able thing in life. Perhaps only partially conscious of the nature or the seriousness of what they do and only partly responsible. In many, the motives are not persistent and many can be made into good soldiers. (C) Confirmed psychoneurotics with long history of nervous breakdowns and illnesses who behave like Class A but more persistently, and from whom not much can be expected in the way of reconstruction."

The P. M. G. goes on to say "Men shoot or cut off their fingers or toes, practically always on the right side, to disqualify themselves for service. Sometimes they put their hands under cars for this purpose. Many men have their teeth pulled out. Retention of urine is simulated. Egg albumin is injected into the bladder or put in the urine. Digitalis, thyroid gland preparations, and strophanthus are taken to cause disturbance of the heart and cantharides to cause albuminuria. The skin is irritated by various substances, which are also injected under it to create abscesses. Various substances are taken to bring about purging. An appearance of hemoptysis may be produced by adding blood, either human or that of animals, to the sputa, sometimes merely coloring matter is added. Those who can vomit voluntarily what they swallow use the same means to create the appearance of hematemesis. Similarly, coloring matters may be added to the stools, mechanical and chemical irritants are made use of to cause inflammation about practically all the body orifices. Jaundice may be simulated by taking picric acid. Crutches, spectacles, trusses, strappings, etc., are made use of to create the appearance of disability."

#### Discussion

Dr. W. W. Pearson, Des Moines—I regret that I was not present to hear all of Dr. Grant's paper. On the other hand, I had the pleasure of reading it, so, as far as having read the paper is concerned, I am qualified to discuss it. The paper is brief and to the point, and I think a great many of those present who took part in the examinations are familiar with the conditions under which the work was carried on. If we analyze the work of any one board, we can appreciate the difficulties under which the examiners labored. The instructions from the provost marshal general's office were not always as concise as they might have been. In November, 1917, the medical aids of the governors of the various states were called to Washington, and there they received instructions from the provost marshal general and the surgeon general. At the same time some of the difficulties which we might expect to encounter were gone over by men who had given this subject a great deal of thought and were responsible for the compilation of the instructions. Upon returning to Iowa I placed the matter before our adjutant general, but as the work had been under way for some time it was

his belief that it was not necessary for us to put in operation many of the suggestions which I had received in Washington. For this reason my position in the work was rather limited up to the time I chose to take a vacation. I received permission to go West and attend the meeting of the Academy of Ophthalmology, Rhinology, Otology and Laryngology, which was held in Denver. Upon leaving Denver I took a trip to the southwest, far removed from telegraphic and telephonic service, and enjoyed myself for a couple of weeks. Returning to Denver, I found a two-weeks-old telegram from the governor saying that he would like me to hurry back, stating that the number of "turn-backs" from the different camps was away in excess of what was to be expected. I returned immediately and had a conference with the governor a day or two later. In the meantime he had been advised as to the cause of the turn-backs, and I believe that Dr. Grant has brought this point out in his presentation today. Instructions had been sent to the camps which were not sent to the local boards, and as a result many men were sent to camps who did not meet the requirements as given in the instructions of the camp examiners. Immediately following this I was asked to take a desk at the state house, to have a stenographer and take care of correspondence, and to rather get between the turn-backs in the camps and the work of the various boards. We immediately organized a plan of instruction with which those who have been interested in the work are no doubt familiar. As to the matter of instruction, I do not hesitate to say that the men who very kindly went out on these instruction trips were in my opinion well qualified to present the subject. Further, I think the men who attended the meetings realized that it was more a question of getting together and discussing the subject and informing each other, than receiving information from the men I had sent out. We got together following these meetings, and the men all spoke most highly of the examiners who were in conference with them, of the interest they displayed in their work and the qualifications which were apparent by their intelligent discussion of the subject. Dr. Grant's figures indicate that the manner in which the work of the Iowa examiners was done, compares favorably with that of examiners in other states. There isn't much to be said further than that the Iowa examiner did his duty. We encountered the influenza epidemic, which handicapped the examiners very greatly, many of them being ill themselves. The examiners who were sent out from Des Moines were busy practitioners, but did their duty because they realized that this was the patriotic thing to do. As a result our examinations were concluded. I think we were second in our class to complete the examinations when the armistice was signed—Wisconsin being the only state ahead of us. To me it is a most remarkable thing when I think of the number of men examined in the United States and the comparatively accurate work performed by those examiners. It was efficient, that is all that can be said. The instructions primarily were rather indefinite. There was a time at the start

when the general impression was that if there was a fellow about town who was not of much service to the community, and he could pass the examinations, he was a good man to send in and get rid of. After a time, however, we learned that as a rule that was not the type of man who would make a good soldier. To be a good soldier a man must be intelligent; he must not be slow and awkward, but up and coming. And as a result some of the drug addicts, for example, were turned back after the doctors had endeavored to cure them and had kept them in camp for a great many months at the expense of the government, a source of discontent to their comrades. But after all is said and done, the work of the Iowa examiners certainly compares well with the work of examiners of any other state. Word was received from the surgeon general's office that there was nothing but commendation for the work of the men in this state.

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## THE LABORATORY SERVICE OF DIVISIONAL LABORATORIES

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CAPTAIN LUCIUS A. FRITZE

### GENERAL DESCRIPTION OF THE LABORATORY SERVICE IN DIVISIONAL LABORATORIES

The work undertaken by these units in the field covered two phases; first, survey work in water and foodstuffs, epidemiological work in the control of communicable diseases; and second, technical laboratory work. These laboratories were stationed in the divisional area, usually at division headquarters or at the headquarters of the sanitary train and participated in all the engagements of their respective divisions. Located, usually some five to seven miles from the front line, the organization operated as continuously as varying conditions permitted. The results accomplished depended, in a large measure, upon the personnel of the unit, for when the personnel was familiar with field survey work and the usual conditions encountered, the results accomplished were of the very greatest value.

Whether in a training area, a rest area, in trench warfare or in battle, the value of these units was clearly demonstrated. As a part of the division surgeon's office, functioning directly under the division sanitary inspector, the medical department was very materially strengthened. The character of work coming within the range of the laboratory was such as to demand the services of the officers and the men in field work outside the laboratory. The work involved is clearly shown by the following example. With a case of suspected diphtheria developing within a regiment, the man was immediately sent to the hospital, the regimental surgeon notifying the di-

vision sanitary inspector at once. All cases were considered positive until proved negative by laboratory findings. Media for taking cultures was supplied to the hospitals and upon arrival of the patient a culture was taken and sent in to the laboratory by courier. Upon completion of the laboratory examination, word was immediately wired to both the regimental surgeon and the hospital and if the case was positive a member of the laboratory immediately visited the organization and cultured all contacts. If the patient remained with the field hospitals, three negative cultures were required before he was returned to his organization. It was the established policy in some laboratories to have all contacts cultured within two hours after a known case of diphtheria existed. With meningitis, typhoid, paratyphoid and dysentery, a specimen from the patient was collected at the field hospital and forwarded by courier to the laboratory. Diagnoses were confirmed by laboratory findings. The usual routine work arising within a field hospital was handled very readily. If the hospitals were so arranged as to have medical, venereal and contagious hospitals scattered in the divisional area, the entire work was handled on a routine basis by means of a courier system. Such service corresponded with the same service found in a civilian hospital.

In the field work requiring surveys of food and water, the entire work was handled very satisfactorily by the laboratory. The location of water sources, the confirmation of the quality, quantity and the availability and the chemical and bacteriological analyses involved in the control of sterilized water, were cared for by members of this organization.

In trench warfare, in a rest area or in a training area, it was found best to locate the laboratory at division headquarters in close proximity to the division surgeon and the division sanitary inspector. All work from the hospitals, even with hospitals scattered throughout the area and located some distance from headquarters, was very easily cared for by means of a courier system.

With the laboratory personnel consisting of two officers and four enlisted men, it was possible to make satisfactory headway under practically all conditions encountered. The success of the organization centered in the ability of the officers to maintain close liaison with the division surgeon and the sanitary inspector, and the ability to adapt themselves to field conditions and to make the most of the very limited facilities at hand. Serological work was not undertaken with any degree of success in the field. Experience showed the results accomplished in general bac-

teriology warranted the work being included in the field laboratories. The usual pathological work found in the field hospitals was handled satisfactorily. Chemical analyses requiring the use of standard solutions presented difficulties that could hardly be overcome in the field, and it is recommended that unless the central supply laboratories are operated in much closer proximity to the combat divisions, such chemical work be not undertaken. The necessary work in connection with water supplies was handled very satisfactorily in these laboratories. The bacteriological work was carried out with a very fair degree of accuracy and the results obtained were consistent with those found in the more permanent organizations. It was found expedient to undertake the testing of water supplies for the presence of poisons during all advances against the enemy. The reagents and supplies necessary to carry out this work were very conveniently carried and the work was of such a character as to warrant it being carried out in the field. In epidemiology the laboratory proved a very vital factor in the prevention and control of communicable disease.

With a definite program mapped out for the medical officers to follow when contagion developed in a division, the laboratory played a very important role, confirming diagnoses and the culturing of all contacts. While the laboratory was of great value in the many phases of work arising within the division, it was not consistent to expect the members of the laboratory to engage in phases of work that had no bearing on the laboratory service. It was found that when laboratory men were called upon to handle bathing facilities, laundry outfits, and the numerous classes of work that fell to the lot of the division sanitary inspector, that the laboratory service itself suffered.

The question arose whether a technically trained officer should be permitted to risk himself examining water supplies for intentional poisoning during the heat of battle. A member of the enlisted personnel could very easily be trained to make the necessary examinations and report findings to the water supply officer. With two of the enlisted personnel trained in this work, one for each infantry brigade, it would permit an early examination of the water supplies and permit the water supply officer to pass on water point locations and work better liaison with the various medical officers concerned in selecting water supplies. Without question, the work should be undertaken, especially with an enemy of low estimation of fair play, before a water point is developed for the use of the troops. Great

assistance is given in the speedy determination of the presence of poisons by using captured prisoners, forcing them to drink the water from the water point selected.

The plan of action differed somewhat when the division was engaged in battle. It was found expedient to divide the laboratory; the bacteriologist with sufficient personnel and the main body of the equipment was stationed at one of the hospitals. If two of the hospitals united to form an advanced evacuation hospital, or if one hospital cared for the major operative work, the laboratory was stationed at this location. It was found that the laboratory gave very valuable assistance at such times in caring for the preparation of Dakin's solution, di-chloramin T, wound bacteriology and the general bacteriological and pathological work arising.

The other half of the laboratory, including the water supply officer and two enlisted personnel, with the necessary equipment, took an advanced position testing water supplies for the presence of poisons, selecting water points and examining sterilized water for the presence of free chlorine. If water supply engineers were functioning within the area of the advance, the data gathered from the poison examinations and the locations selected as most practical for water points, were communicated to them with the least possible delay. These engineers would supply the necessary personnel and equipment to produce a satisfactory drinking water. The duties then devolved upon the water supply officer were to advise all organizations of the division the location of potable drinking water and the checking of the purified water at the time of consumption by the troops.

### III. DISCUSSION OF HOUSING, EQUIPMENT, PERSONNEL, FUNCTIONS, ETC., OF DIVISIONAL

(A) *Housing*—Great difficulty was encountered at times in obtaining satisfactory quarters for the divisional laboratories. As a rule, in the rear, in training and rest areas, no difficulty was encountered in obtaining sufficient and satisfactory space. In these two locations it was possible to obtain quarters with light, heat and water. It was preferable to select two rooms in a convenient and accessible location such as barracks, private homes or public buildings.

In stationary trench warfare the laboratories were usually stationed in towns from which the civilian population had been evacuated. Quarters in public buildings or private houses were readily obtainable. Usually private buildings in a well protected location were selected and precautions used that all activity was kept from the view of

the enemy. It was not always possible to obtain quarters with light, heat and water, but fortunately these inconveniences were readily overcome.

In battle the housing problem was most uncertain. Under varying conditions as the army advanced or retreated, it was necessary for the laboratory to be established in the most convenient place. Such locations as open fields or road sides with no protection, tents, dug-outs, or demolished buildings were usually those used. Whatever the location, it could be safely said the chances were the work would be carried out under very serious difficulties.

(B) *Equipment*—The attached list of equipment is recommended as best suited to meet the field conditions found in this war. The quantity of the various items to be carried by one of these units is made up from two conditions, one the character of work and the amount of work accomplished by the various laboratories in this war; and second the problem of supplies as presented to those in the field.

The expandable unit outfit, using small compact chests, is the most practical equipment to carry. Each box designated for some certain class of work so that the laboratory may be divided, if necessary, makes the equipment much more satisfactory.

Included in this list is found transportation. It is recommended that either two medium, standard trucks or one truck and one trailer and one motorcycle side car, be supplied each of these units if the unit is to be mobile and independent. If it is necessary for these organizations to depend on others for transportation, it is impossible to maintain any standard of efficiency.

(C) *Personnel*—The work arising in the field laboratory is very much like that found in a city or state board of health and a hospital laboratory. Such work requires the services of men trained in chemistry, bacteriology and pathology. All the work arising in the field laboratory can be handled satisfactorily by two officers, one a chemist and bacteriologist familiar with water supplies and water supply problems, the second a bacteriologist and pathologist familiar with hospital work and general bacteriology. The enlisted personnel should consist of four men; one a laboratory assistant, one a clerk, and two handy men in laboratory work qualified to drive trucks and to be used as assistants in both laboratory and field work. The laboratory assistant should be a sergeant, the clerk a corporal and the two drivers privates first class. The officers should have the rank of captain.

(D) *Functions*—The divisional laboratory was to the division in the same light as a board of

health laboratory is to a city or a laboratory to a civilian hospital. It was the aim of the laboratory service to have these units function, as near as possible, along lines established in a board of health laboratory, including field work. In epidemiology the laboratory is of inestimable value. In water supply investigations and control the laboratory assumed the entire responsibility. The usual pathological work arising in the hospitals was cared for very satisfactorily.

It was the experience of the majority of divisional laboratories that no hard and fast rule could be laid down for methods of procedure during rest, stationary trench warfare, and battle. The situation presenting itself on the particular front occupied governed the necessary action. One found that methods which were successful in stationary trench warfare were not applicable when a division advanced a kilometer an hour in active combat. In training areas, rest areas and in trench warfare, the unit functioned very much the same, along more or less permanent lines. An important detail in the operation in these sectors is to place as much work as possible on a routine basis, establishing close liaison with the division surgeon and sanitary inspector, and a courier system with all the hospitals.

In battle the trained personnel of such an organization was not broken up and used as hospital personnel. Instead, the identity of the organization remained intact and functioned continuously. Usually the organization was divided, part stationed at the operating hospital and part in the advanced section checking water supplies and locating water points. At no time was the equipment stored, the work being too important.

The following memorandum issued by the division of laboratories and infectious diseases, office of the chief surgeon, in July, 1918, defines the contemplated functions of the divisional units. This outline in general was followed, but the experience of the laboratories showed that the scope and work defined could be very materially enlarged.

#### **American Expeditionary Forces**

##### **Office of the Chief Surgeon**

##### **Division of Laboratories and Infectious Diseases**

U. S. Army Post Office 721, July 7, 1918.

##### **Memorandum No. 5.**

#### **DIVISIONAL LABORATORY UNIT**

1. In the organization of the laboratory service for the A. E. F. provision was made for a divisional laboratory unit to serve with each division.

The personnel, equipment and transportation for each unit is as follows:

Personnel—One captain or first lieutenant, M. C. or M. R. C., medical department; one captain or first

lieutenant sanitary corps, medical department; four enlisted men, medical department.

Equipment—Chest 1—Standard equipment for clinical pathology; chest 2—Standard equipment for clinical pathology; chest 3—Standard equipment for bacteriological incubator.

Transportation—One light truck ( $\frac{3}{4}$  ton Ford or other standard); one motor cycle with side car.

2. It is contemplated that these laboratory units shall constitute a part of the sanitary staff of the division surgeon and that they will be used by the divisional sanitary inspector in the investigation and control of communicable diseases and in the inspection, supervision and control of sterilization of water supplies.

Some division surgeons have found it most practicable to attach the laboratory unit to the divisional sanitary train. When in divisional training or rest areas it is contemplated that the laboratory unit will be attached to the camp hospital functioning for the division. At the front it is attached to an immobilized field hospital, preferably the one through which infectious diseases and medical cases are evacuated.

3. To properly perform its functions, it is contemplated that the medical officer and officer of the sanitary corps attached to this unit shall, on arrival in France, be sent to the Central Medical Department Laboratory for temporary duty for a brief course of instructions in the epidemiology of communicable diseases and supervision of water supplies respectively and to obtain their laboratory equipment. Further practical instruction will be given these officers by specially trained officers of the infectious disease and water supply sections of this office who will visit them from time to time for the purpose of giving aid in the solution of local problems.

4. When an epidemic disease prevails in a division in such proportions as to make it seem desirable to temporarily reinforce the divisional personnel and to have special epidemiological and laboratory studies made for the control of the disease, the division surgeon is authorized by Bulletin No. 32, G. H. Q., American E. F., to communicate directly with the director of laboratories and infectious diseases, who will dispatch special personnel and mobile equipment to reinforce the divisional authorities in controlling the epidemic.

5. The equipment to be supplied the divisional laboratory unit has been standardized and arranged in chests in order that it may be packed and moved at a moment's notice.

Chest 1—Weight 230 pounds, dimensions 24x24x36 inches. Chest 2—Weight 140 pounds, dimensions 21x24x30 inches. Chest 3—Weight 180 pounds, dimensions 29x22x28 inches.

These chests constitute the divisional laboratory equipment. Chests 1 and 2 contain the equipment and supplies for routine clinical pathology, while chest 3 contains a bacteriological incubator complete, arranged for heating with coal oil. With this equipment the following classes of work can be done.

**Sputum**—Microscopic examinations of smears for tubercle bacillus, pneumococcus, influenza bacillus and animal parasites.

**Urine**—Appearance, color, odor, reaction, specific gravity and qualitative tests for albumin, sugar, acetone and diacetic acid. Microscopical examinations of urinary sediments. In suspected cases of typhoid fever about 10 c.c. of the urine should be sent to the Central Medical Department Laboratory or the nearest base or army laboratory in a bottle of bile medium, for isolation of the suspected micro-organism.

**Venereal Lesions**—Microscopical examination of smears for gonococci and Fontana-stained preparations from venereal sores for spirochates.

**Blood**—Hemoglobin estimations (Tallquist), leucocyte counts, red cell counts, and differential leucocyte counts. Microscopical examinations of stained preparations for pathological changes, plasmedis, etc. In every case of undetermined fever of over forty-eight hours duration, 2 to 5 c.c. of blood should be collected in a bottle of bile medium and the culture sent to the Central Medical Department Laboratory or the nearest base or army laboratory for further study. Sera for agglutination tests, the Wassermann test, etc., should be collected in the serum capsules furnished with the equipment and sent to the nearest of the laboratories mentioned above.

**Feces**—Microscopical examinations of fresh specimens for parasites, ova, blood, mucus and pus cells.

In suspected cases of typhoid fever, paratyphoid fever or dysentery, about a gram of the feces should be sent to the Central Medical Department Laboratory or the nearest base or army laboratory, in a bottle of bile medium, for isolation of the specific micro-organism.

**Transudates and Exudates**—Microscopical examinations of stained specimens for tubercle bacilli, gonococci, spirochetes, etc. and cytological changes.

**Spinal Fluid**—Microscopical examinations (cytologic and bacteriologic).

It is not intended that highly technical bacteriological and serological work shall be done by these units.

In epidemics requiring epidemiological study and laboratory control, it is contemplated as noted in paragraph 3, above, that special personnel and mobile equipment will be sent to reinforce the local authorities on request from the division surgeon.

6. It is not contemplated that the sanitary corps officer attached to this unit for supervision of water supplies shall do any extensive chemical or bacteriological laboratory work. His work will be confined to sanitary surveys of sources of supply, recommendations concerning quality of water and supervision and instruction of sanitary detachments in the details of sterilization of water by chlorination or otherwise. His work will be done under the supervision of the divisional sanitary inspector. Where bacteriological or chemical analyses are deemed advisable, the specimens will be collected by the water supply officer of the laboratory unit and forwarded to the nearest army or base laboratory or mobile water laboratory.

The divisional laboratory unit will be issued a chlorine testing outfit for use in controlling the chlorination of water supplies.

When extensive surveys requiring laboratory control are necessary, the water supply officer for the army will be called on for assistance. He has under his control mobile water analysis designed to carry out such investigations.

7. Expendable items of the laboratory equipment will be replenished from the Central Medical Department Laboratory. Spare parts of non-expendable equipment are carried in stock at the Central Medical Department Laboratory and will be supplied on requisition. All replenishment items should be requisitioned for by number as well as by name.

8. At the present time no transportation is provided for these units in tables of organization, and request has been made that one motorcycle with sidecar and one light truck ( $\frac{3}{4}$  ton Ford or other), be included in the revised tables of organization for this unit.

The truck has been asked for in order that the unit may be mobile. When the laboratory unit is immobilized temporarily it is contemplated that this truck will be used for collecting specimens, investigating epidemic diseases, delivery of supplies and for such other purposes as the division surgeon may designate. The motor cycle with sidecar is to be used by the water supply officer forming part of the laboratory unit, in the investigation and supervision of water supplies, and by the bacteriologist in the investigation of epidemic diseases.

So far, no light trucks, and with few exceptions, motor cycles with sidecars have been supplied these units, and it is understood by this office that, pending their inclusion in tables of organization, request for them must originate with the division surgeon.

One member of the enlisted laboratory personnel should be trained to drive the truck and one to drive the motor cycle.

J. F. SILER,

Colonel, Medical Corps, N. A.

(Continued in December Number)

## THE WORK OF RED CROSS ORGANIZATIONS IN RELATION TO THE PREVENTIVE MEDICINE OF THE FUTURE\*

SIR ARTHUR NEWSHOLME, K.C.B., M.D.

It is difficult to give, as I am invited to do, in brief space and without the detailed reports of proceedings in which I took part, a clear conception of the conclusions reached at the extremely important International Conference of Red Cross Societies which was held in Cannes during April of this year.

I shall endeavor, however, to state the concep-

\*An address delivered at American Red Cross Headquarters, Washington, D. C., May 2, 1919.

tion which gave rise to the conference and to give some of the conclusions reached by the experts in a number of departments of medicine on which are being based the initial steps for the organization of a new departure in Red Cross work.

It is unnecessary to remind actual Red Cross workers of the vast amount of beneficent work, rendered possible by the gifts of possibly half the American population, which has been carried out by your agencies in the various belligerent countries. The record of saving life, of alleviation of suffering, and in other instances of prevention of greater suffering, is one calling for gratitude and congratulation. This work has been rendered possible by an unrivaled combination of trained and of relatively untrained workers. The trained workers were indispensable; but without the invaluable assistance of intelligent, previously untrained, voluntary workers, a vast mass of suffering would have been left unalleviated and unrelieved.

This work in the main has been directed toward the healing of the sick and wounded, but not entirely so; for most interesting and valuable work has been done among the civilian population of the belligerent countries, in providing medical assistance, in special work for the treatment of tuberculosis, in securing medical assistance and advice for mothers and their children, and in caring for those who have been rendered homeless by ruthless war. In America, also, Dr. Clark informs me, that around military camps in states in which public health administration is imperfect, an organization has been evolved, through cooperation between the Central Public Health Service and the American Red Cross, by means of which territories about camps have been "cleaned up," the risks of malaria and other communicable diseases, including venereal diseases, have been minimized, a good milk supply assured, and elementary sanitation established. It is evident therefore, that already the Red Cross, when local sanitary arrangements were imperfect or in abeyance, has taken upon itself the burden of the emergency preventive measures as well as of measures of relief.

In so doing it has acted wisely. Preventive work is always more productive in results than relief work. It is also more economical. It is wiser as well as more humane to erect a parapet along the top of a dangerous cliff than to provide an ambulance at its base.

I do not, however, wish to give countenance to the notion that prevention and treatment of disease must be regarded in antithesis. The two are parts of a whole and not distant and separate. This may be illustrated by two of the most se-

rious diseases to which humanity is subject, tuberculosis and syphilis. Of these, tuberculosis is probably the chief producer of dependent widows and orphans; while syphilis, on the authority of Sir William Osler, must be regarded as third among the killing diseases. For the prevention of both of these diseases treatment forms an indispensable preventive measure. Every arrangement conducing to the comfort of recovery of the tuberculosis patient diminishes the risk of massive infection in his family; and the prompt treatment of syphilis by arseno-benzol preparations is the most effective means for securing his immediate disinfection as well as his progress toward cure. And even when the elementary personal infection is absent, it can be argued with justice that the prompt and efficient medical treatment and nursing of the sick not only diminishes the duration of individual disability, but prevents the impoverishment and enfeeblement of other members of the same family.

But for an increasing proportion of the total sickness of humanity, total prevention is now possible, and I need scarcely cite the almost complete disappearance of typhus in Western nations in peace time, the rapid decline of enteric fever, and the improvement in regard to a large number of other diseases. The number of preventible diseases is being steadily increased, as investigation progresses, and as our knowledge of the already ascertained laws of health increases and becomes disseminated among the general population.

It was, therefore, a happy inspiration of Mr. Davison, the president of the American Red Cross, which led to his calling together the international conference of Red Cross Societies at Cannes, with a view to considering means by which the world-wide activities of Red Cross workers might be utilized for the prevention of illness as well as for the treatment of sick and wounded mankind. It is a vision of the future, which I think, will have a great influence on the welfare of mankind, if, as I am confident will be the case—the conception fires the souls of the multitude of Red Cross workers and contributors in every civilized country, and leads them to determine against demobilization of their forces, and to continue their beneficent activities against the horrors of peace, which, in the aggregate, are even more serious to mankind than those of war.

The statement that the devastations produced by disease in times of peace are even greater than the loss of life from war, may be illustrated by the experience of England and Wales. In the four years, 1911-14, immediately preceding the World War, 2,036,466 persons died in England and

Wales, while, according to official figures, the total loss of men, during the four and one-half years of war, was 835,743, including 161,800 presumed dead. The war figures give the entire loss for the British Empire; but it cannot be far from the truth to state that war on the gigantic scale of the war from which we have just emerged has killed in Great Britain about one-third as many as have died in the civilian population in a corresponding period. I do not lose sight of the fact that a large proportion of the civilian deaths occur in ripe old age, and that 28 per cent. of the total civilian deaths occur among the children under five, while those destroyed by war are adults and the most virile of our race. But the greater part of the deaths in childhood, as well as in adult life, before old age is reached, are preventible; and in the future will be prevented, given adequate research, intelligent and unsparing application of knowledge already in our possession, and an avoidance of the public parsimony which in relation to public health constitutes the most serious form of extravagance. That is the ideal which Mr. Davison and his collaborators place before us; and it was to devise plans to this end and to enlist the continued cooperation of all Red Cross workers that the conference was called at Cannes.

The conference held a number of general meetings in which the general policy to be pursued was discussed and then divided itself into sections dealing with the following subjects: preventive medicine, child welfare, tuberculosis, malaria, venereal diseases, nursing, information and statistics. These sections were not selected as covering the entire ground of preventive medicine, but as forming branches of work in which early investigation and action appeared to be most desirable.

But first of all the lines of general policy were discussed.

It is evident that although measures for the prevention of disease constitute a definite governmental function—neglect of which is treason to the communal welfare—even in the more advanced countries our governing bodies have not lived up to their potentialities. In scarcely a single sphere of its work can it be said of any government or of any local authority, that what could be done to prevent disease and to avoid human suffering has been completely accomplished. To say this is merely to express the imperfectness of humanity, singly or the greater imperfections of committees and councils entrusted with the public purse and the public weal.

There is, and I think always will be, ample scope for supplementation of official work by voluntary workers, for the experimentation in new

and promising work which it is so difficult to initiate in official circles, and for the undertaking of necessary work by devoted volunteers when public opinion and officialdom refuse to undertake it.

This disposes of the argument that Red Cross activities in the prevention of disease merely prevent the development of official work. The true object of all voluntary workers is to stimulate official public health work, and when in any sphere the latter is fully developed to welcome the disappearance or reduction of voluntary non-official work, or seek the new means of social help which are always waiting for devoted workers to initiate.

The conference agreed that the new work of the Red Cross would naturally divide itself into two parts: an International Bureau, and National Organizations. The duties of these and their relation to each other will be more clearly seen in the light of experience. The International Bureau in the scheme proposed for the consideration of the conference—which received general approval—would act as a great center for collecting information on various public health subjects, and for digesting it and subsequently distributing it by means of special publications, or periodical journals, or on application from those requiring specialized information. It would also act as a means of educating the general public on urgent problems affecting its welfare; and it would be utilized as a center, organizing in less favored communities, missions which would undertake local investigations and remedial work. These surveys and activities would be intended rather as demonstration centers than as permanent organizations, the intention being to withdraw them as soon as the necessary work could be carried on by local Red Cross or other organizations.

It was suggested that the central bureau should comprise a number of branches dealing with epidemic diseases, tuberculosis, venereal diseases, child welfare, nursing and other subjects, collating and analyzing information and distributing it through the medium of the National Red Cross of each country.

Such a central bureau, it will, I think, be agreed, will be of the greatest value to all social and public health workers, while not clashing with any existent agency.

The proposed organization of Red Cross agencies for preventive work has already received an imprimatur in the draft league of peace; and it would be appropriate that its headquarters should be near if not side by side with the future home of that league. If it receives the full development for which we hope, it will form, perhaps, a chief

instrument in securing peace and continued happiness for mankind.

The relation of the central bureau to National Red Cross societies will be one of mutual cooperation. The central bureau will provide information and facilities for national work; the actual work will need to be carried out in each country nationally and in the main from funds supplied by that country.

It is not intended that the National Red Cross shall undertake, much less compete with, work already being carried out either by local authorities or by existing voluntary associations. If, for instance there is a society concerning itself with child-welfare, or the prevention of tuberculosis, or of venereal disease, the National Red Cross would naturally give such assistance as it could through its voluntary workers in this special work, while leaving untouched existing arrangements. If no such societies existed the National Red Cross might advantageously assist in their formation, retiring as soon as the separate organization was working.

In countries in which official and existant voluntary agencies scarcely exist more active and continued work of the Red Cross organization will be called for; in such countries assistance may be needed from the central international bureau.

Evidently there are many points of central and national administration requiring and now receiving fuller and more detailed consideration; and all that need now be said is that it appears to me certain that International and National Red Cross organizations which will concern themselves with the prevention of disease as well as with the relief of suffering will be formed, and that they will have pregnant influence in hastening the reduction of human disease.

The second week's deliberations of the conference at Cannes were filled with meetings of committees of experts and more formal sectional meetings, at which lines of policy on certain specific subjects were formulated for the later deliberations of Red Cross Societies in Geneva.

It is unnecessary to summarize in detail the scientific recommendations reached in various subjects. It may suffice, as indicating the wide scope of the field of work about to be surveyed, that among the more urgent problems of preventive medicine priority was given to advocacy of combined efforts for the prevention of the major pests of mankind, of the provision of laboratory assistance in the diagnosis of disease, and in securing more accurate vital statistics and improvements in public health legislation.

In child welfare work, the importance of health

visiting, of child welfare centers, of an improved midwifery service, and of continuous observation of children under school age as well as scholars was emphasized.

In regard to tuberculosis stress was laid on the essential point that measures against this disease must embrace the whole of the sick lifetime of the patient, and must include when necessary, measures for obviating the results arising from the fact that the partially recovered patient commonly is unable to earn an economic wage.

In the prevention of venereal diseases a similarly wide outlook was advocated, including the necessary social and moral as well as medical measures against their spread.

In the preceding brief statement I have endeavored to indicate the main outlines of the proposals considered by the Cannes Conference. My statements are merely those of a participator in the conference; and it is evident that outside of the momentous decision to endeavor to retain mobilized the forces of Red Cross organizations and to secure their assistance in the great impending struggle against disease, no final decisions have been made. The growth of the central and of each national organization in the desired direction must necessarily occupy time, though I believe development will be rapid, once the great ideal is visualized clearly by Red Cross workers in each country.

I have referred in an earlier part of these remarks to the imperfections of governments, central and local, in the control of disease. These imperfections indicate one of the most promising fields in which voluntary agencies, like the Red Cross, can assist toward greater efficiency. Both local and central authorities are elected by the people themselves and the laws and regulations for the promotion of the public health—and what is even more important, the enforcement of existing regulations—depend for their efficiency on public opinion which we can all assist in forming. The natural tendency on the part of the social enthusiast who has been disappointed in his efforts at reform, is either to retire from the fight or to organize a voluntary organization having the same end in view. This last may sometimes be the best line to pursue, though in that case endeavor should be made to secure friendly relationship with, if not also the active cooperation of, the local authority. But often the most hopeful plan is to fight the local elections and to secure the election on local governing bodies of men and women who will give these bodies no peace until the necessary reforms are secured.

If we are to be helpful we must be kindly and charitable in our criticism of local authorities.

Nothing has made it so difficult to secure good men and women to undertake the burden of local government as the indiscriminating and uncharitable criticism aimed at those engaged in it. Criticism of members of our central and local governing bodies is not seldom deserved; but critics are too often those who will give no assistance in the work which, with insufficient knowledge, they vilify. When we hear of scandals in administration, let us have a sense of proportion, remembering the grosser corruption evidenced for instance in Pepys' Diary and especially remembering that the best way to remove corruption is by ourselves taking a part in the work of central or local government, or by steadily upholding those who are doing so with integrity.

The onlooker, whether it be on voluntary or on official work for the commercial good, has his duty to perform as well as the worker. It is his duty to make himself acquainted with local conditions and with local administration, even though he takes no part in it. A chief need at the present time is an interested study by every adult of all the phases of local administration in each district; and in my view Red Cross organizations will be rendering inestimable service to the community if they succeed in educating the public conscience to this effect. Increased local patriotism is urgently needed if the prospective fight against disease by the Red Cross Societies is to succeed, and if the further triumphs of preventive medicine within our reach are to be secured. To this end enthusiasm will need to be infused into official public health administration as well as into the work of voluntary agencies; and it is only by developing all the possibilities of our governing bodies as well as of voluntary societies and by securing the closest cooperation between the two that the new ideal of the Red Cross organization can be realized.

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#### MATERNAL WELFARE WORK IN FRANCE TO CONTINUE

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The Maternal Welfare Work established in France, under the auspices of the Red Cross Children's Bureau, by Dr. F. L. Adair, Associate Professor of Obstetrics and Gynecology in the University of Minnesota, Minneapolis, is to continue. The plan of prenatal consultation established by Dr. Adair is to serve as a model in the School of Peuriculture of Child Welfare, which is to function under the American Red Cross Children's Bureau cooperating with the Medical College of Paris.

In September, 1918, Dr. Lucas, director of the Children's Bureau, began an investigation of prenatal care in Paris. He requested that the work be organized systematically under a definite head and Dr. Adair was given the commission.

In the few months, during which the work was established in two sections in Paris, the population of which numbers 600,000, about 500 prospective mothers were cared for in the consultations and also in their homes, which means that this number of families were approached in both a medical and social way.

In the hospital social service work, which was conducted for only two months, the results were most gratifying and much was accomplished. Over 500 prospective mothers were interviewed and advised how best to meet their new problems of living. The response from the people was pathetic, showing how great had been their need of guidance.

The women were found by securing from the Mairie the list of those who had applied for an 'allocation;' by establishing a liason with the maternity hospitals of the neighborhood to secure names of women registered in their consultations who lived in the quarters where prenatal work was being conducted; by establishing friendly relations with the "sages femmes" of the neighborhood and by helping them to give their patients better care; by references from such other agencies as the Rockefeller Commission and Children's Welfare work and by one woman bringing another to the consultation. Through these agencies about 200 women came to the prenatal consultations during the first six months.

An organization was formed to carry on the medico-social work installed in the hospital and an attempt was made to form a society of social visitors who would be capable of teaching the mothers the proper methods of caring for themselves, of making preparations for the birth of the child and giving other information necessary for persons in their condition.

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The London Lancet of June 21, 1919, makes the following observations on drug addiction in the United States:

"Evidence has already been given showing that drug addiction is unduly prevalent in this country. The Special Narcotic Committee appointed to investigate into the matter has shown that not only is the drug habit in the United States remarkably prevalent, but that this country easily leads the world in the consumption of habit-forming drugs. The committee states that there are 1,000,000 addicts, and that more than \$61,000,000 (£12,200,000) is spent annually by these people. The consumption per capita of habit-forming drugs in the United States is nearly ten times more than that of its nearest competitor. According to this report, native-born Americans lead in the consumption of these drugs, and it is stated further that the majority of immigrants put down as addicts did not reach this stage until after they had been in the United States for some considerable time. The traffic in drugs is said to be increasing rapidly. So far as New York City is concerned, the commissioner of health reports that there are 103,000 addicts."

# The Journal of the Iowa State Medical Society

D. S. FAIRCHILD, Editor.....Clinton, Iowa

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## THE COUNCIL OF PHARMACY AND CHEMISTRY OF THE AMERICAN MEDICAL ASSOCIATION

One of the important assets of the medical profession is the Council of Pharmacy and Chemistry, organized by the Board of Trustees of the American Medical Association. Previous to the organization of the Council a countless multitude of preparations; emulsions, syrups, extracts, pills, tablets, etc., were offered to the medical public. Some were good, some worthless, some intermediate, but nearly all misrepresented by most extraordinary claims. The medical profession was near falling into the hands of enterprising medicine houses and becoming the dispensing agencies of establishments more or less honest. There was apparently no means of determining what could be relied on and what could not be relied; to meet a pressing need the Council was formed, composed of men holding the highest places in chemistry and pharmacy. A great outcry arose in certain interested quarters, but the Council survived. The Council investigated the products offered the profession and reported their findings to the medical journals and some journals refused to carry the advertisements of products that were worthless or misrepresented. If there was no moral obligation, there was the question of sound business. If the medical profession found that the advertising columns of a journal were unreliable and unsound, it was fair to assume that all other departments were likewise unreliable and unsound.

An unexpected outcome of this change in the publicity department of the American Medical Association was the organization of State Medical Journals supported in part by the State Society and thus released from the control of medicine houses, which had so extensively supported the journals. At first it appeared to many that the state journals were merely bulletins for the periodical publication of society papers to take the place of a yearly volume of transactions.

An evolutionary process in medical society activities led to a broader conception of a state society journal; to the status of a real journal in the hands of a responsible editor; then the function of a state medical journal extended to the furnishing of original matter from reliable sources, including papers read before state and local societies, reliable advice and opinion in the editorial columns, reliable medical news, reports of societies, reliable information about new books and not least, reliable information as to the merits of the various things offered for sale, particularly drugs and medicines. It will thus be seen that a line of distinction was drawn between the honest constructive activities of reliable institutions and the purely commercial medicine houses, until now it has become the custom of good agents offering products for sale, to meet all questions and objections by presenting as the best evidence the advertising columns of the association or state journals.

We wonder sometimes if the medical profession realize the importance of examining the advertising columns of these journals, they are just as much a part of the journal as the reading columns and to make the columns valuable great care is observed in selecting advertising matter under the direct advice of the Council of Chemistry and Pharmacy. Some doctors may think the purpose of carrying advertising is to make money for the journal, but this is a mistaken view. The primary object is to furnish information to our subscribers and incidentally to add to the income of the journal for the very legitimate purpose of increasing its value.

In this connection we desire to present the views of the editor of the "Missouri State Medical Journal" who saw in the beginning the true function of a state journal:

Despite many obstacles thrown into its path, the Council on Pharmacy and Chemistry has serenely pursued its allotted tasks, corrected its mistakes, improved its methods, and today stands as the only medium to which the honest physician may turn for information—not misinformation—regarding proprietary articles. During the war the council and the chemical laboratory were in close cooperation

with the surgeon general's office, testing and investigating every article offered to the government for the treatment of the sick soldiers. The variety and the number of fakish and fraudulent stuff offered to the surgeon general was a pitiable exhibit of the mental gymnastics of some people. Just now the council and the laboratory have a new and important field before them, i.e., to protect the physicians against worthless and useless serums, vaccines and synthetics. It will be the council's unpleasant duty to expose the fraudulent and useless among these articles and stamp truth on those found worthy.

We seem to have wandered from the topic in our caption but not so in reality because the burden of our thought is to lend our influence to the spread of the motto of the Advertising Clubs of the World, namely, "Truth in Advertising." It is our purpose to stimulate a larger degree of enthusiasm for the work of the Council on Pharmacy and Chemistry and the Chemical Laboratory, a more generous flow of inquiries concerning articles unfamiliar to the physician, and particularly to urge that the words "accepted by the Council on Pharmacy and Chemistry of the American Medical Association" be printed on the label and on all advertising circulars of proprietary articles that have been admitted to New and Nonofficial Remedies. Then, when pamphlets and circulars are received by physicians they will read the statements of manufacturers with sympathetic understanding and with full confidence in the verity of the declarations. The importance of creating just that sort of receptivity in the mind of the prospective buyer is so well known to the astute publicity expert that it is needless for us to dwell on its advantages. Every proprietary article advertised in our Journal, in The Journal of the American Medical Association, and in the other state association journals, as well as in several well edited privately owned journals, does in effect say to the reader that the articles so advertised are accepted by the council because only proprietary articles so accepted are accepted by us. The fact is further acknowledged when these firms are permitted to exhibit their goods at our annual sessions for again the rule is enforced that only proprietary articles which have been approved by the council may be placed on display.

Why not complete the circle of ideas—it would not be a "vicious circle"—by printing on labels, in advertisements and circulars, the words: "Accepted by the Council on Pharmacy and Chemistry?"

## FIFTY YEARS IN THE PRACTICE OF MEDICINE

It is something for a man to be able to say that he has practiced medicine without an interruption for fifty years—except for an occasional vacation day, and particularly so if the practice has been continuously in the same community. This honorable distinction comes to Dr. A. B. Bowen of Maquoketa, who for a period of fifty years prac-

ticed in the important city above mentioned. Dr. Bowen located in Maquoketa almost immediately after graduating from Albany Medical College on December 22, 1868. He married, and raised his children there, he became a leading citizen there and made his professional reputation there.

In recognition of his services to the community his neighbors gathered at his home on September 17th to do him honor. There were some of the oldest citizens present who remembered him as a young man when he came to try out some of the knowledge he had acquired in the medical school. There were young people, their parents and grand parents who had been under his professional ministrations.

Dr. Bowen is a general practitioner who has administered medicine in every form; powders, pills of every color and size, tablets of every variety, with skill and discrimination, he gave quinine before there were capsules and quinine pills which had the faculty of passing through the entire intestinal tract without undergoing change, he had diagnosed fever before the fever thermometer came into use, had given morphine before the hypodermic syringe had come. He had performed surgical operations from lancing a boil to performing gastroenterostomy, had attended fourteen hundred obstetrical cases of every kind and variety. He had operated for hernia, appendicitis, ovarian tumors, fibroid tumors, the greater and lesser operations in pioneer days, before the days of hospitals, except in large cities. It may be said that but few men have had a greater range of professional activities.

Dr. Bowen was born in Eastford, Connecticut, April 12, 1842. His ancestors came to Plymouth Colony in the Mayflower. In 1861, while attending Mexico Academy at Oswego, N. Y., he enlisted in the United States Navy and was assigned to the flagship "Neptune" which did duty in the West India Convoy service and was honorably discharged at the Brooklyn navy yard in June, 1865. He entered upon the study of medicine and graduated from the Albany Medical College in the Class of 1868. He became a member of the Iowa State Medical Society in 1872 and a few years later a member of the American Medical Association.

In 1874, he married Miss Minnie Clark: two children were born, Mrs. Francis Bowen Myatt and Dr. Jesse Clark Bowen, who is practicing medicine with his father.

The writer had the advantage of graduating in the same class with Dr. Bowen, entered upon the practice of medicine at the same time and have been associated intimately with him since. We have had our annual reunions—a very select party



MAJOR THOMAS A. BURCHAM,  
Sanitary Corps No. 10

Entered service August 25, 1917  
Sailed overseas October 18, 1917  
Returned overseas January 26, 1919  
Discharged from service March 7, 1919



of two. As the two old fellows met to celebrate Dr. Bowen's fiftieth anniversary, they could not but reflect on the changes that had taken place in the world's affairs and particularly what had taken place in the practice of medicine. We had the good fortune to consult with Dr. J. R. Guthrie of Dubuque who was present, as to the soundness of our mental operations and if time had blunted our faculties of perception and understanding. No answer has been made.

### THE ROCKFORD MEETING OF THE TRI-STATE MEDICAL SOCIETY

The third meeting of this society brought together an interesting group of medical men from all three of the states included in this association.

To add to the interest incident to this getting together of medical men, was the clinical provision under which distinguished clinical teachers from the centers of medical education were utilized including Dr. S. S. Cohen, of Philadelphia; Dr. Hugh Cabot, of Boston; Dr. A. J. Ochsner, of Chicago; Dr. G. W. Crile, of Cleveland, and others. During the sessions each of these gentlemen presented more formal addresses, including Dr. F. H. Albee of New York, while members of the society filled in the body of the several meetings. At the banquet on the evening of the last day, Major General Wood and Major General Bell, as special guests, addressed the doctors and their wives. The other speakers of the evening were Dr. Solomon S. Cohen, Dr. Hugh Cabot, Dr. James H. McKee and the presidents of the Michigan, Illinois and Iowa State Medical Societies.

The 1920 session will be held at Waterloo under the presidency of Dr. Helm of Rockford.

The Journal of the A. M. A. for July 12, 1919, makes the following editorial observations on Louis Pasteur, whose life has been so eloquently set forth by R. Valley-Radot, which should be read by every medical graduate. It is an inspiration.

Soon after the conclusion of the armistice, a new and apparently very successful dramatic experiment was attempted in Paris. A dramatist well known heretofore as a specialist in "amorous psychology," M. Sacha Guitry, has had presented a play without a female character, a single minded portrayal of a hero of humanity, Louis Pasteur, in the opinion of critics, at least, it is an entire success. Pasteur is shown in a sort of aureole of hero worship as patriot, as scientist, and as passionate well wisher of mankind in general and in particular. He brooks no opposition to what he knows to be right, he fights

bitterly against the conservatism which would nullify his progress, and when successively he receives all the honors which France and other countries can bestow, he is grateful and modest. The third act offers the exciting occasion of the first antirabic inoculation of the little boy, Joseph Meister, and the event is utilized with considerable effect to emphasize the sympathetic warmth of Pasteur's nature as the fitting complement of scientific ability. Pasteur's speech is full of the expression of his ideals, taken in part from actual public addresses. "Do not search for those who will give you advice; look rather for those who will set you an example." "Labor and persevere"—it is the keynote of his life, of a life in which the only element of importance is his work, which, however, is always actuated by the high purpose of improving the lot of man. The final words of the play, written in the year 1918, are the words of Pasteur himself: "And I believe absolutely that knowledge and peace will triumph over ignorance and war, and that men will work together, not to destroy, but to build."

The piece is interesting, not only as an effort to present a great man of science to popular applause, but also because it has apparently met the approval of critics and theater goers. The dramatic aspects of Pasteur's life are of necessity pushed to the fore, but it does not seem that his character is distorted.

### THE TRANSPLANTATION OF THE VERMIFORM APPENDIX

Dr. Charles M. Rosser of Dallas, Texas, records in "Southwest Journal of Medicine and Surgery" for August of 1919, a case of transplantation of the appendix to supply an absent urethra in a female. The patient had been operated upon for a "malignant" tumor of the urethra five years before with a loss of bladder control. Dr. Rosser conceived the idea of using the patient's appendix to supply an urethra. The operation consisted—first, in incisions through the mucosa, one below the clitoris and the other at the bladder exit between which a tunnel behind the anterior vaginal vault was made with suitable forceps in accordance with the following steps:

Mucosa was dissected from inside neck of the bladder for the distance of about three-fourths of an inch. Splitting the mucous membrane over the neck of the bladder, longitudinally uncovered the remaining portion of its sphincter so that it could later be narrowed. These preparatory steps taken, the patient's normal appendix was removed together with its meso and quickly placed in a warm saline. While held immersed in this the tip was cut off, its lumen sterilized by injection of 50 per cent. alcohol, and a small-sized catheter passed through it. The meso-appendix was then clipped and several linear incisions made through the peritoneal coat. So prepared, the catheter with the transplant was inserted through the tunnel described well into the bladder, the distal end of the appendix entering the freshened bladder neck about one-half inch, where it was su-

tured as was the tunnel to bladder with fine catgut. The proximal end projected fortunately half an inch out of the upper end of the tunnel. This made a meatus possible by splitting and sewing the flaps back on either side to a denuded surface.

The results are said to have been quite satisfactory, "furnishing what promises to be a permanent and satisfactory urinary canal."

The British Medical Journal refers to a speech by the Minister for National Service in the House of Commons relating to man power and the number of men called into military service in the beginning of 1918.

"The British Army has," he said, "on its rolls over four million men, and altogether the British nations have provided for the armed forces of the crown not less than 7,500,000. Of these 4,530,000 or 60.4 per cent. have been contributed by England; 620,000 or 8.3 per cent. by Scotland; 280,000 or 3.7 per cent. by Wales; 170,000 or 2.3 per cent. by Ireland; and 900,000 or 12 per cent. by the Dominions and the Colonies. The remaining million men, composed of native fighting troops, labor corps, carriers and so on, represent the splendid contribution made by India, Africa and other parts of the empire."

#### HAECKEL DIES IN JENA

Prof. Ernest Heinrich Haeckel, evolutionist and philosopher, died August 9th in Jena, Germany, at the age of eighty-five. He was educated in medicine and started practice in Berlin but preferred to study in biological fields. In his General Morphology he carried the theories of Darwin to more definite conclusions, and in The Riddle of the Universe he expounded his theory of monism. All his life he suffered from the bitter opposition of the church and it was only at the instigation of Alexander, Duke of Weimar, that he retained his professorship in zoology at the University of Jena. Since 1909 he had lived in retirement.

#### THE DISCHARGED TUBERCULOSIS PATIENT

Colorado Medicine presents impressive editorial comments on the educational value of statistics of tuberculosis sanatoria. The Gaylord Farm Sanatorium, Connecticut, is cited. In ten years' work in this institution 1,112 patients have been treated and all but twenty-two cases have been traced. "The statistics showed that the discharged patients had in this time already earned \$1,339 as against an entire cost of \$400,477 upon the maintenance of the institution (including interest at 5 per cent. on construction and equipment)." Important information was also furnished as to desirable occupations for the tuberculosis. Patients did better when they resumed their own work rather than light work out of doors which perhaps was not congenial. The good results

obtained at Gaylord was in a measure due to the large wages earned. The average wages earned by men from Gaylord was \$21.37 per week as compared with \$9.81 from Otisville, New York. It is contended that holding reunions of old patients was very helpful in maintaining interest and preventing carelessness of themselves on leaving the sanitarium. Many other important points are set forth of interest in helping to maintain the good results of institutional treatment.

The writer makes the following observations: "We no longer believe that the whole duty of the community to the tuberculous begins and ends with the sanatorium. We are aiming to prevent tuberculosis by educating the public to avoid those conditions which favor its development; and we are at the same time learning more and more that sanatorium treatment is for the most part a failure unless it is made merely the first step in a lengthy plan of watchful care and teaching."

#### BRITISH HONOR FOR MAJOR-GENERAL IRELAND

The British government has conferred the Cross of Companion of the Bath upon Major General Ireland, in recognition of his services as chief surgeon of the American Expeditionary Forces and as surgeon general of the American Army.

To the Editor of the Medical Record.

Sir: There has accumulated in the surgeon general's library a considerable amount of material in the way of duplicate medical books and periodicals. Owing to lack of space, much of this material will have to be condemned and disposed of. In accordance with the policies of the library, a free access to all medical literature in duplicate has been given to the medical libraries of the country, the only condition being that they remove the material at their own expense. Those in charge of medical libraries not too far away from Washington, D. C., may take advantage of this opportunity for adding to their collections or supplying their desiderata until September 1 of this year.

FRANCIS A. WINTER,  
Colonel M.C., U. S. A.,  
Librarian, S. G. O.

#### A PLETHORA OF GERMAN DOCTORS

After having suffered from a dearth of doctors during the war due to the demands of the army, civilian Germany now finds itself over-supplied with medical men. The Leipsic Branch of the Association of Physicians of Germany summed up the situation in a recent issue of the Berliner klinische Wochenschrift which states that the maladjustment between the supply and demand in the field of medical employment was never so great as it is at present. The inability to find work in civilian life is most keenly felt among the younger physicians, 5,800 of

whom have been graduated during the years of the war. Equally grave news comes from Austria-Hungary where it is said some 700 former military doctors remain unemployed, after all openings have been filled, to whom may be added some 600 or 700 civilian doctors from German-Bohemia, the southern Tyrol, etc., who have been driven to German-Austria because of the creation of national governments. Altogether considerably over 1,000 doctors have been made jobless through the political happenings in German-Austria. To add to their hardships the National Constitutional Convention has approved alterations in the compulsory health insurance regulations that will practically ruin the profession according to reports. Persons who can satisfy the authorities that their earned incomes do not exceed \$1,000 a year are permitted to join the scheme if they so desire. The fees which doctors receive on behalf of these assured persons worked out to not more than eight cents a visit. That there will be a rush of German practitioners to this country after the signing of the peace treaty is very certain, unless measures are taken by the authorities to refuse them a license to practice.—Journal A. M. A.

#### UNITED STATES PHARMACOPOEIAL CONVENTION OF 1920

Article VIII, Chapter I of the By-Laws of the United States Pharmacopoeial Convention provides that the President:

"shall issue, on or about the first of May of the year immediately preceding that of the decennial meeting, a notice inviting the several bodies, entitled under the constitution to representation there in, to send delegates to the next meeting. He shall repeat the notification, eight months later, and shall request the medical and pharmaceutical journals of the United States to publish the call for said meeting."

Article II of the Constitution provides:

"The members of the United States Pharmacopoeial Convention, in addition to the incorporators and their associates, shall be delegates elected by the following organizations in the manner they shall respectively provide: Incorporated medical colleges, and medical schools connected with incorporated colleges and universities; incorporated colleges of pharmacy, and pharmaceutical schools connected with incorporated universities; incorporated state medical associations; incorporated state pharmaceutical associations; the American Medical Association, and the American Chemical Society; provided that no such organization shall be entitled to representation unless it shall have been incorporated within and shall have been in continuous operation in the United States for at least five years before the time fixed for the decennial meeting of this corporation."

Section II of the Constitution provides:

"Delegates appointed by the surgeon general of the United States Army, the surgeon general of the United States Navy, and the surgeon general of the

United States Marine Hospital Service, the secretary of agriculture, the secretary of commerce and labor, the association of official agricultural chemists, the association of state and national food and dairy departments, the national wholesale druggists association, and the national dental association, and by the organizations not hereinbefore named which were admitted to representation in the convention of 1900, shall also be members of the corporation. Each body and each branch of the United States Government above mentioned shall be entitled to send three delegates to the meetings of this corporation. But no such delegates as are provided for in this article shall be members until their credentials shall have been examined and acted upon as provided for by the by-laws."

In the discharge of the above required duties, I hereby ask all competent and designated bodies and authorities to name and issue credentials to the fixed number of delegates to the tenth decennial convention to meet in Washington, D. C., on the second Tuesday of May, 1920, at 10 o'clock a. m. at a hall to be designated hereafter. The appointed delegates are requested to promptly forward their credentials to Noble P. Barnes, M.D., The Arlington Hotel, Washington, D. C., assistant secretary of the convention, who will file them for consideration of the committee on credentials which will be appointed by the president not later than March 1, 1920, according to the requirements chapter vii, article 1 of the by-laws.

Done at Washington, D. C., May 5, 1919.

HARVEY W. WILEY,

President of the United States  
Pharmacopoeial Convention.

#### SOCIETY PROCEEDINGS

The Benton County Medical Society met in Van Horn for the annual election of officers. George M. Luckey, M.D., of Vinton, was chosen as president, and G. R. Woodhouse, M.D., of Vinton, was made secretary and treasurer. The outgoing officers were, president, George A. W. Wagner, M.D., Van Horne, and secretary and treasurer, J. P. Whitney, Vinton.

Members of the Dubuque County Medical Society met in September and discussed the new narcotic law with William Stodelben, government revenue collector for this district.

Drs. Michel, Blocklinger and Paulos were appointed as a committee of three to formulate plans by which the society may cooperate with the government in the enforcement of the law.

According to the new measure no practitioner will be permitted to administer a narcotic in any manner to drug addicts and is subject to the penalties of the law should this be done.

The Tri-State Medical Society of Iowa, Illinois, and Wisconsin, elected Walker B. Helm of Rockford, president; Dr. J. B. Deaver of Philadelphia and

Dr. J. R. Guthrie of Dubuque, honorary presidents; Dr. H. G. Langworthy of Dubuque and Donald Macrea, directors. The 1920 meeting of the society will be held at Waterloo.

At the annual meeting of the Iowa State Medical Women's Association, the following officers were elected: Dr. Nellie S. Noble, president; Dr. Lenna Bech, first vice-president; Dr. Josephine Rust, second vice-president; Dr. Clara Cronk, secretary; Dr. Eppie McCrea, treasurer.

Report of the Botna Valley Medical Society meeting which was held in Atlantic, Cass county, Iowa, on September 11, met in the Masonic hall, the meeting was called to order by the president Dr. J. F. Crosby of Stuart.

#### Program

X-Ray Interpretation of Bone Pathology--Dr. W. E. Wolcott, Omaha, Neb. This was illustrated by a number of excellent lantern slides.

Control of Venereal Disease in the Detention Home for Women--Dr. Palmer Findley, Omaha, Nebraska.

Treatment of Acute Lung Trouble in Young Children--Enos Mitchell, Grand River, Ia.

Ophthalmology and Otology in the A. E. F.--L. L. Henninger, M.D., Council Bluffs, Ia.

Actinomycosis of the Appendix, report of case--Dr. J. W. Harrison, Guthrie Center, Ia.

Fistulae and Perforation of the Biliary Tract--A. C. Stokes, M.D., Omaha, Neb.

A Series of Interesting Accident Cases--Dr. C. H. Waters, Omaha, Neb.

Sarcoma in a Child Twenty-three Months Old, report of case--Dr. B. D. Atchley, Shelby, Ia.

Some points of General Interest in Connection with Cataract--H. Gifford, Omaha.

Some Phases of Baby Feeding--Dr. M. L. Turner, Des Moines, Ia.

The program was excellent and there were quite a number of doctors present.

The following officers were elected for the ensuing year: President, Dr. C. L. Campbell, Atlantic, Ia.; vice-president, Dr. Moore, Walnut, Ia.; secretary and treasurer, Dr. W. S. Greenleaf, Atlantic, Ia., who succeeded Dr. A. Weaver of Cumberland, Ia., the latter having resigned after serving a number of years.

The next annual meeting will be held in Avoca, Iowa.

A. Weaver, Sec'y.

#### PERSONAL MENTION

Dr. George Lyle Venable has located in New Sharon. A graduate of Penn College, where he took a classical course, then graduated from Rush Medical College in Chicago, served an internship at St. Luke's Hospital for sixteen months before going to the army, where he served in the medical corps for thirty-three months with a commission of first lieutenant.

Captain C. G. Baird of the Medical Corps, A. E. F.,

has returned to his home in Davenport, Iowa.

Dr. E. E. Munger of Spencer has moved to Chicago, Illinois.

Dr. L. D. Huff has located in Lenox.

Dr. John B. Gregg, late a captain in the British Army, who won a British war cross while fighting along the Somme, where he was wounded by a shell that pierced his leg, and was frequently gassed, has returned to Iowa City. He has joined the clinical corps of Dr. L. W. Dean, dean of the College of Medicine, S. U. I. King George personally decorated the former Hawarden, (Iowa), man, for distinguished bravery at Tincourt, along the Somme, March 21 and 22, 1918. Captain Gregg won his A.B. at the Iowa State University, in 1915, and his M.D. the same year. He is one of the state's ablest young surgeons. His brave deeds overseas when doctors fought like seasoned soldiers with the English Army are described as "wonderful" by those in touch with the situation.

Russel Carson, son of Dr. A. Carson, 2923 Rutland avenue, left for Cleveland, Ohio, where he will enter the Case School of Applied Science. He has been awarded a \$500 fellowship in the school as a result of his record in Drake University. Graduating from Drake in 1917, Carson was prominent in the activities of the local school, being a member of the Gamma Sigma Kappa fraternity, and a member of the track team. Carson enlisted in the aviation branch of the navy in January, 1918, and received his commission in May, 1919, with the highest grades in his class.

Dr. J. D. Dunshee of Harlan has returned home from Army Medical Service.

Major John E. Morgan of Oskaloosa, Ia., has returned home from Army Medical Service.

Dr. J. J. Daly of Decorah, Ia., has returned home from army medical service.

Dr. Lenore Carpenter who has been in Red Cross work in France, has returned home.

Captain Park Findley, Des Moines physician, 1204 Forty-sixth street, has returned from Fort Bliss, Texas, where he has been stationed with the Fifth Cavalry. He expects to be discharged from the army within the next few weeks.

Dr. E. A. Graham, formerly of the Park Hospital but the past two years better known as Major Graham, has been tendered the chair in the school of surgery at the Washington University, at St. Louis.

Dr. W. J. Fenton, who received his discharge from service in May, at the base hospital, Camp Sherman, Ohio, and who has just recently returned to Des Moines from New York, where he has been taking post graduate work, announces that he will open offices September 1, in suite 420-21-22 Iowa building, for the practice of orthopedic and bone and joint surgery.

Capt. Frank L. Williams, formerly a member of the One Hundred Sixty-eighth Infantry and a local surgeon of Des Moines, was discharged from the service September 4. Capt. Williams was wounded at Sergy in the Chateau Thierry offensive and was later presented with the distinguished service cross.

Following the signing of the armistice he was enrolled on school detachments to England and Scotland.

Dr. Jamison of Osceola is spending a few weeks at Rochester, Minn., where he is taking a course in special surgery at the Mayo Brothers Hospital.

Capt. H. S. Merrick of Ottumwa, of the quartermaster corps, returned after more than two years service divided between the quartermaster and ordnance departments of the army. His most recent station was in charge of the Pickric acid plant at Brunswick, Ga., where he was in command for the past two months. He had also been stationed for intervals at Raritan arsenal, New Jersey and at Camp Bowie, Ft. Worth, Texas.

Dr. Walter L. Bierring arrived on the George Washington from Europe, where he has been the past three months in the interests of the national board of medical examiners, with Col. Louis A. La Garde of the regular army.

Dr. E. E. Darnell has located in Wapello for the practice of medicine.

Dr. Jeannette F. Throckmorton, state board of health lecturer in charge of women's work, starts on a lecture tour in the southern part of the state and is thus initiating a campaign which will extend to every Iowa county before it is completed. In recent months she has lectured in the larger cities of Iowa, speaking at the noon hour or other convenient times to the girl workers in factories or other places where a considerable number of women are employed. Dr. Throckmorton is employed jointly by the state and government in the work of ridding the nation of social diseases. Dr. Wilbur S. Conkling of Des Moines, who received high honor in France for his work with the medical corps of the 168th and other regiments, is now in charge of this work in Iowa.

Dr. Leonard A. West, formerly a well known student in the university and now acting as intern in the general public hospital at St. Johns, N. B., was given six weeks' leave of absence from his post. He will spend this time as regular ship doctor on a Royal Mail Steam Packet, which is bound for British West Indies, Bermuda, British Guiana, and other points in South America. His wife, who was Miss Jean Dayton, will accompany him on this voyage.

Dr. C. Fuson, who spent twenty-six months in France as a medical officer and who has just been discharged from the army, visited the home service section of the Red Cross today. Dr. Fuson is now in the public health service in connection with medical treatment for discharged service.

Dr. and Mrs. Wilton McCarthy, who have been spending a week at Banff, Can., have been joined by Mr. and Mrs. Albert McCarthy of New York. Dr. and Mrs. McCarthy expect to return to Des Moines about October 1.

Davenport physicians and surgeons who were in military service during the World War and their wives enjoyed a dinner party at the Blackhawk Watch Tower. Following are those in the company: Dr. and Mrs. George Braunlich, Dr. and Mrs. W.

Speers, Dr. and Mrs. J. D. Blything, Dr. and Mrs. L. Shafer, and Dr. and Mrs. E. O. Ficke.

## OBITUARY

Dr. F. R. Lierle of Marshalltown, Iowa, died suddenly at Kenilworth Sanitarium, September 10. Dr. Lierle had not been in good health for about a year.

Dr. Lierle engaged in general practice in Marshalltown in 1894, following his graduation from Rush Medical College. After engaging in general practice for fifteen years, he specialized in diseases of the eye, ear, nose and throat. He was active in medical and civic affairs and served as both city physician and coroner and at one time was secretary of Marshall County Medical Society.

Dr. Lierle was born at Quincy, Ill., December 23, 1871. Soon after entering practice here he was united in marriage to Miss Laura Rolston, of near Liscomb, June 15, 1902. They were the parents of two children, Dean, who is a medical student at the State University and has been doing intern work at the Clarinda state hospital, and Dorothy, who is teaching school at Mount Pleasant.

July 27, 1904 Dr. Lierle was united in marriage with Miss Eugenia West, at Osceola, Neb. Mrs. Lierle, who is living in Marshalltown, survives her husband as do his parents, Mr. and Mrs. Albert Lierle, of Norwalk, and two sisters.

After he began specializing Dr. Lierle was appointed consulting specialist of the soldiers' home and the boys' training school at Eldora.

Dr. James Riggs Burkhart died suddenly of heart disease at his home in Davenport, September 8. He had been ill but an hour. The affliction was the climax of his attack of flu in October, 1918.

Dr. Burkhart had practiced in the tri-cities twenty-two years.

He was a graduate of the Keokuk Medical College.

Surviving are his wife, mother and two sisters. One of the latter is a doctor, also, Dr. Etta Petrie of Rock Island.

Mrs. E. A. Morden, wife of R. P. Morden, 1116 Twentieth street, Des Moines, Iowa, died very suddenly Saturday, August 16, of apoplexy. Mrs. Morden was a pioneer of Iowa, coming here in 1869. She was in active practice of medicine for forty-six years, one of the first women physicians in the state.

Mr. and Mrs. Morden celebrated their golden wedding anniversary in 1914. The sudden demise of Mrs. Morden came as a surprise to the many friends of the family. R. P. Morden, and children, R. B. Morden of Jefferson, Iowa; R. O. Morden of Minneapolis, Minnesota; Dr. Leone Scruby and Dr. R. R. Morden of Des Moines, Iowa to mourn her loss.

Mrs. F. V. Hibbs, wife of Dr. F. V. Hibbs of Carroll, was killed by a Great Western train west of Lohrville.

Dr. J. M. Emery, age sixty-five, Ingersoll apartments, one of the best known life insurance men in the central and west part of the country, died following a stroke of paralysis at Helena, Montana.

### BIRTHS

Born to Doctor and Mrs. Frederick A. Roost of Sioux City, a daughter.

To Doctor and Mrs. A. P. Donohoe of Davenport, a son.

### MARRIAGES

Captain Charles E. Frear of Sioux City to Miss Martin, a nurse in overseas service. Dr. Frear was in sanitary train service near Bordeaux, France, where they were married.

Dr. Roy Parry of Scranton to Miss Hazel R. Farr of Garden Grove.

Dr. Clifford Barbork of Denison and Miss Bessie Long of Mt. Ayre.

Dr. F. E. Walsh of Britt and Miss Lillian Lundell of Algona.

Miss Alida F. Showalter of Poweshiek county February 18.

Dr. Walter B. Swift, of Boston and Cleveland, presented May 6, 1919, a paper on "The Psychology of Americanization" before the Southern Society of Philosophy and Psychology. As this paper presents new and important procedures for the guide of the wave of Americanization that is now in the country, we reproduce the following:

Summary—Americanization propaganda work is a mere shell of what it ought to be because it is based upon the false psychology or the absence of any psychology. Right action depends upon right collaborative processes. Proper collaboration rests upon well-trained interpretation. Interpretation can find its proper basis only in full and accurate knowledge. The present teaching of English scarcely makes a beginning in this program. We should start at once to Americanize the would-be American before he is admitted. We should at once establish a nation-wide educational movement to Americanize all foreigners within our borders and that, too, before they are admitted to citizenship. We should not tolerate double citizenship. We should immediately stop all our immigration until we have the machinery for the execution of this. Then we should allow only as far as they can be thoroughly Americanized. The wholesale importation of foreigners, packed like sardines, should be considered illegal and the most un-American steamship monopoly. After all these external sifting processes have been established in legal form, we should go to work along psychological lines of building up knowledge, forming and making interpretation, followed by thorough education of collaborative processes, until all of our citizens are ground into American personalities, not merely shells of citizens.

### REPORT OF COMMITTEE ON ARRANGEMENTS, DES MOINES SESSION, 1919

#### Receipts

Chamber of Commerce.....	\$ 60.00	
Exhibitors .....	410.00	
Banquet tickets.....	551.00	\$1,021.00

#### Disbursements

Plymouth church.....	\$ 120.00	
Banquet—375 plates.....	750.00	
Golf and Country Club.....	50.00	
Killarney Trio.....	25.00	
LeRoy Shields—Music.....	20.00	
Aroules Sheasby—Music.....	20.00	
Truehafts Orchestra.....	18.00	
Chamberlain Hotel—Guests.....	20.15	
Registration .....	20.00	
P. M. Keyes, electrician.....	15.00	
Stenographer and stamps.....	15.00	
M. L. Doxsee—Signs.....	10.90	
Stoner & McCray—Signs.....	2.20	
Moving piano.....	10.00	
Perkins Electric Co.....	8.13	
Janitor and night watch.....	12.00	
Incidentals .....	7.92	
Cigars and cigarettes.....	39.18	
C. D. May—Selling tickets.....	5.00	
Flowers for banquet.....	10.00	
	\$1,178.48	
Deficit .....	157.48	\$1,021.00

Respectfully submitted,

O. J. FAY,  
Chrm. Com. on Arrangements.

### BOOK REVIEWS

#### THE MEDICAL CLINICS OF NORTH AMERICA

March, 1919, Number 5, Volume ii. Published Bi-Monthly by W. B. Saunders Company. Price Per Year, \$10.00.

The "Boston Number" begins with a clinic at Brigham Hospital by Dr. Henry Christian on Cutaneous Pigmentation and Jaundice Connected with Changes in the Liver and Spleen. Also a case of fibrinous bronchitis. Dr. Graves brings forward a case of cancer of the body of the uterus as a borderline case in gynecology.

Dr. George R. Minot presents a series of cases of enlarged spleens. Dr. H. Leinenthal devotes a lecture to the consideration of the relation of clinical to industrial medical and Dr. Francis W. Peabody reviews some of the lessons of the war in the field of cardiac disease.

The reader will find the Boston number up to the standard of the series of American clinics.

(Continued on Adv. Page xviii)



Doctor:

Have you a case in which a hematinic is immediately necessary? There are a great many where the oxygen carrying power of the blood is reduced to an extent that makes increase of hemoglobin essential.

Extract of Red Bone Marrow (Armour) is hematogenetic and is prepared for that kind of cases. Extract of Red Bone Marrow is entirely free from alcohol. It is palatable and when given well diluted with cold water is easily appropriated.

*Thromboplastin* (Armour) is a specific hemostatic, 25 c.c. vials.

*Pituitary Liquid* (Armour) is free from preservatives and is standardized— $\frac{1}{2}$  c.c. and 1 c.c. ampoules.

*Literature on the endocrine gland preparations on request.*

**ARMOUR AND COMPANY**  
CHICAGO

*Thyroids* (Armour) standardized. Thyroid Tablets  $\frac{1}{4}$ ,  $\frac{1}{2}$ , 1 and 2 grains.  
*Corpus Luteum* (Armour) gives results. Powder, two grain tablets, 2 and 5 grain capsules.

**SUCCESSFULLY PRESCRIBED  
OVER ONE-THIRD CENTURY**

# “Horlick’s”

**The STANDARD product, assuring the most  
reliable results from the use of Malted Milk**

Imitators cannot reproduce our Original process and consequently lack the distinctive quality and flavor of the Genuine “Horlick’s”

*For information concerning medical and surgical  
uses, and for prepaid samples, write—*

**Horlick’s Malted Milk Co.**  
**Racine, Wis.**

## BOOK REVIEWS

(Continued from Page 394)

### GERIATRICS

A Treatise on Senile Conditions, Diseases of Advanced Life, and Care of the Aged, by Malford W. Thewlis, M.D., with Introductions by A. Jacobi, M.D., L.L.D., and L. L. Wascher, M.D. C. V. Mosby Company, St. Louis. Price, \$3.00.

The author calls attention in the first place to the fact that but little has been written about the diseases and the conditions of old people and in the second place that the subject is important; not only in the way of conserving valuable lives but also in rendering the later years of men and women more comfortable and happy. Old age is not a disease, but an involution by which the tissues and organs deteriorate from impairment of the nutritive powers and become less active. The arteries of the old man become more or less rigid and in consequence the tissues and organs are less perfectly nourished, and are less resistant to disease. The elimination of toxic agents is less perfect and the patient suffers various toxemæ. The mental faculties fade, often on account of toxic conditions and frequently the old person suffers from a distressing mental depression. Every one is familiar with the peculiarities and the sadness of old age. Much is written about growing old gracefully. This might apply more frequently than it does if the condition of the aged was watched and the functions of the various organs looked after. The author shows what disorders the old most frequently suffer from, and points out how these disorders may be remedied, and recommends a special study of the affections of old age and a patient consideration of the symptoms. Particular attention is given to elimination, exercise and employment. Dr. Themlis has made a study of the conditions which make old age distressing and unhappy. While we are more or less familiar with what he says, yet the appeal which he makes in behalf of the old, comes to us with greater force from appearing in the form of a special treatise, embodying certain details of treatment and management. The physician who reads this book will find himself better qualified to advise some grateful patient how he can live longer and enjoy more of life.

### SYMPTOMS OF VISCERAL DISEASE

A Study of the Vegetative Nervous System in its Relationship to Clinical Medicine, by Francis Marion Pottenger, A.M., M.D., L.L.D., F.A.C.S., Medical Director, Pottenger Sanatorium for Diseases of the Lungs and Throat, Monrovia, California; Professor of Diseases of the Chest, Medical Department, University of Southern California, with 86 Text Illustrations and 9 Color Plates. C. V. Mosby Co., St. Louis, 1919. Price, \$4.00.

Dr. Pottenger in this interesting book lays the foundation for the study of visceral diseases by a

consideration of certain physiological facts in relation to the vegetative nervous system. The first section of the book is devoted to the reflex activities in the sympathetic nervous system, considering the effect of diseased, or inflamed organs on sympathetic ganglia through afferent nerves to the spinal cord and the brain and through afferent fibres to certain areas producing pain or through trophic changes in muscles. The author after a fundamental consideration of the nature of sympathetic reflexes, discusses the subject under three heads. First, Visceromotor Reflex; second, Viscerosensory Reflex; third, Viscerotrophic Reflex, in which reflex spasms, referred pain and reflex trophic changes are explained.

In addition to the reflexes through the sympathetic nervous system comes the parasympathetic reflexes by which changes in one organ produce changes in another, or syndromes not arising from the organ primarily diseased.

Part two is devoted to the consideration of a clinical study of the more important viscerogenic reflexes. This includes the digestive tract, the liver, gall-bladder and pancreas, the diaphragm, the bronchi and lungs, the pleura, the heart and blood-vessels, the salivary glands, the nasal and pharyngeal mucus membranes, the eye, the urogenital tract, the subdermal musculature and the endocrine glands.

Part third relates to the vegetative nervous system considered from an anatomical and physiological point of view. The book is one of great interest and importance and interprets many obscure questions in relation to diseases of the visceral organs difficult to understand.

### THE CONTROL OF HOOK-WORM DISEASE BY THE INTENSIVE METHOD

By H. H. Howard, M.D., Director for the West Indies. Published by the Rockefeller Foundation, International Health Board, New York City.

This pamphlet deals with measures taken for the eradication of ankylostomiasis, describing the work done in British Guiana during 1914, which procedures were known as intensive method. This mode of combating the disease is now being used in many countries, and is applicable in different localities and under varying conditions.

The problem of hook-worm control is considered in its general aspects, followed by a description of the intensive method, selection of area of operations, publicity and educational measures, and gives an idea of the working force required. The necessity for census taking is emphasized and the laboratory work is outlined. Treatment and prevention are next discussed and the cost is figured per capita.

The wide applicability of the method, its educational value, and its influence on the population are mentioned in conclusion, followed by appendices dealing with forms, supplies, dosage, tables and general instructions for nurses.—Captain H. R. Reynolds, M. C.

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## ORATION IN MEDICINE\*

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*Mr. President, Members of the Iowa State Medical Society and Honored Guests:*

I wish Mr. President, to express to you and your committee, my sincere thanks and deep appreciation for the honor conferred by this invitation, and my profound sense of responsibility in assuming the duties of this position.

I am not a little abashed, when I recall the fact that this place has been filled by many eminent men who have contributed so much by ready pen, untiring labor, and patient investigation to make the Iowa profession illustrious. I must content myself with an attempt to give briefly, to you, some views from the broad field of general medicine as they have impressed me from the marvelous record made by medicine during the strenuous year just passed into history.

Modern scientific medicine presents no more brilliant achievement than the recent radical revolution in American Medical Education. No triumph is more enduring than the rapid wrestling of the number of medical colleges with their lax, inefficient requirements and the substitution of the modern, heavily endowed colleges with laboratories well-equipped and manned, and ample clinics, conducted by trained experts devoted entirely to the work of teaching. These changes mark the most signal advance in all the field of modern scientific medicine.

The medical experience of the last eighteen months puts special emphasis on the above statements. From local exemption boards, from the various training camps and the base hospitals, "over there," comes the emphatic plea and demand for the more intensive training of all medical men subsequently to be graduated from our colleges.

A hopeful sign of improvement became apparent in medical education a few years ago, when greater weight was placed upon the teaching of

internal medicine. Admittedly the ground work of all scientific medicine. Frequently now, the student seeks to specialize in internal medicine, a condition which contrasts favorably with the practice of only a few years ago. Now the internships in the department on internal medicine are eagerly sought for by the wideawake and ambitious students of our science. A better balance has thus been struck between the various departments of the healing art, and internal medicine occupies more nearly the place to which she is rightfully entitled. Everyone now fully recognizes the practical advancement recently along scholastic lines, which places the American College of Medicine fully abreast with the other institutions of our country.

Organo-therapy occupied a well recognized position before the war which was practically unchanged by the experience, study and investigation of 1918. The lack of advancement in this department is probably due to many causes, one of them being the heavy draught made upon the brain, energy, and inventive genius of the profession along intensely active lines in medicine and surgery. In spite of conflicting notions, I believe it may be fairly stated that the consensus of opinion is in favor of a conservative employment of the animal extracts in a properly selected range of cases. Organo-therapy has accomplished much and has a future, full of hope and promise.

Serum-therapy has, during recent years, made progress by leaps and bounds, and it will be freely admitted that nothing in its history has given to it such an impulse as the World War from which we are emerging. Serum-therapy as a prophylactic of disease bids fair to be the most brilliant achievement of the century, capable of almost completely annihilating certain forms of disease and of saving thousands of human lives. Typhoid vaccination was well established before the war. Employed and endorsed by the experience of the army and navy of Great Britain, France, Germany and America. Its practical benefit was demonstrated as an absolute preventative in the trouble on our Mexican border a few years ago,

\*Presented to the Sixty-Eighth Annual Session, Iowa State Medical Society, May 7, 8, 9, 1919, Des Moines.

and so from all sources of reliable information the value of anti-typhoid inoculation was established. Serum in the prophylactic treatment of para-typhoid and tetanus has been demonstrated to be of great efficiency. Scientists differ widely and sharply upon some of these questions but this conflict of opinion is commendable, not deplorable. For from agitation, discussion, fair-minded investigation, comes the new idea and with new ideas, practical permanent progress.

No epoch in history ever brought public health questions so near to the heart of the people as did this World War. The great problems of quarantine, disinfection, and sanitation have been driven home to the very heart of the people with irresistible force, and will produce untold good to generations yet unborn. The absolute value of cleanliness and personal hygiene have been brought to every home and to every fireside. The intimate and close study of the delicate questions of sex-hygiene and venereal infection will be productive of inestimable value to mankind, so that in these beneficent accomplishments we may see a silver lining through the darkest cloud. The past year has been full of weighty questions. I crave your kind indulgence while I attempt briefly to refer to three of them in some detail.

In the year 1917, there appeared in Austria a form of disease described by Economo<sup>33</sup> and afterward designated as lethargic encephalitis, and known today generally throughout the world by this name. An acute febrile condition associated with languor, apathy, drowsiness, nerve palsies, squint, and nystagmus. This disease spread from Austria to France, England, and in 1918, to the United States where many cases have been observed. The disease appears to be very similar to that which accompanied the influenza epidemic of 1889 and '90 and some previous epidemics which, and in Switzerland, was known and described under the name, Noma. A similar condition was described by Leichtenstern in 1892. Somnolency is not peculiar to influenza but has been observed in cerebrospinal meningitis. The supposed etiological relationship of lethargic encephalitis to influenza merely rests on the coincidence of the two diseases. It may be the cerebral form of influenza, or it may be due to a distinct virus. In the eleven cases observed by Bassoe<sup>34</sup> there was no history of a previous influenza. Kennedy<sup>35</sup> who has seen several cases is not satisfied that the two diseases are intimately related. The symptoms of this condition are somnolency, vertigo, ataxia, disturbed vision, eyes half open mouth distorted, nervous twitchings and in severe cases the body becomes rigid.

The onset of the disease is gradual. A thor-

ough investigation of this disease in England led to the conclusion that it is distinct from poliomyelitis; nor could it be identified with botulism. The pathological anatomy, as studied by Economo<sup>33</sup>, Marie Tretieckoff<sup>34</sup> showed acute inflammatory lesions in the cerebral peduncles with Wallerian degeneration of the nerve fibres, the trophic centers of which were very much injured. Histological study by Marisco<sup>31</sup> show that the disease is one belonging to the group of poli-encephalitis and of acute inflammatory origin. This inflammation is characterized by infiltration of the capillaries by plasma cells and lymphocytes. Occasionally, there is present a number of polyneuclears charged with black pigment around and within the veins. The nervous parenchyma is much infiltrated. The virus is propagated along the lymphatics of the nerves and the port of the entry is probably the pharynx or nasal mucosa. The brain stem and basal ganglions are the parts particularly liable to be affected by toxemia. Bassoe<sup>34</sup> in two of his cases which came to necropsy, found the gross changes consisted of edema, congestion, and minute hemorrhages most numerous in the brain stem, basal ganglion, and centrum ovale. There is little evidence of necrosis or tissue degeneration, thus differentiating it from the cerebral and bulbar forms of epidemic poliomyelitis. The spinal fluid is clear, and cultures made from it and the blood, are apparently negative. No bacteria was found by Bassoe in sections taken from the brain, but it should be remarked, however, that both Economo and Marinesco claim to have found diplostreptococci in the brain. In the French cases reported the mortality was 50 per cent., due it is thought to involvement of the vital bulbar centers. So long as the direct etiology of this disease remains unknown, the treatment must be empirical and very unsatisfactory. Active treatment in the present state of our knowledge must be entirely symptomatic. Personally, I have had no experience whatever, with the disease and desiring to obtain some information from my colleagues, I mailed a hundred and twenty questionnaires upon this and other subjects, to the members of the profession in Iowa, southern Wisconsin, and northern Illinois, and have received seventy-four replies. Sixty-seven answers to the questionnaire reported no cases seen of this disease. The remaining seven questionnaires report in all nineteen cases diagnosed as lethargica-encephalitis and from a careful review of the clinical symptoms reported, the writer would surmise the cases correctly diagnosed, and from these reports, it would also appear that the mortality rate corresponds with the report above.

Nothing in the whole history of medical science has wrought such havoc with mankind the world round as the recent pandemic of Spanish influenza. It is not primarily a local respiratory disease, but a systemic infection, with a distinct clinical picture. Bloomfield and Harrop divide the symptoms into two groups. First, the constitutional reactions to an acute febrile disease, headache, generalized pains, fever, vomiting, etc. Second, intense congestion of the mucous membrane of the nose pharynx and upper respiratory tract. Some authorities say there are certain premonitory symptoms a few weeks before the outbreak, consisting largely of mild upper respiratory tract disturbances. Bright red spots in the throat, pharynx, tonsils, dark crimson spots on the inside of the cheek mucosa, febrile albuminuria, and leukopenia. Hemorrhage from the nose and lungs are common, and early cyanosis and prostration was marked. Cases of influenza have been variously classified, the classification by Moore<sup>3</sup> is perhaps as accurate as any. First, the neurotic, neuralgic or rheumatoid type; (2) the cardio-pulmonary type; (3) the gastro- or gastro-abdominal type; (4) the febrile type. Men of wide experience have voiced the sentiment that in many of their cases, two or even more types were present. Certain abdominal conditions sometimes occur in influenza which rather closely assimilate appendicitis, but in these cases, an enema usually causes their disappearance. Delirium and bloody expectoration are usual symptoms indicating complications arising in the lung and brain. Although many exhaustive investigations have been made there is no satisfactory evidence that epidemic influenza is due to a known agent. A study of the literature of influenza since the discovery of the Pfeiffer bacillus (*B. influenza*) in 1892, shows that very great doubt exists regarding the etiological significance of this organism in connection with influenza. That it is present is undoubted, but that it is causal is not evident. Pritchell and Stillman<sup>5</sup> found the *B. influenza* present in 43 per cent. of normal mouths and in 93 per cent. of the mouths of patients with influenza and broncho-pneumonia. Rucker<sup>6</sup> attributes the *B. influenza* as the etiologic factor in primary influenza; but thinks that it (*Friedlanders bacillus*) is the active agent in the consecutive pneumonia. Whittingham and Sims<sup>7</sup> found the streptococcus, pneumococcus, *B. catarrhalis* and *B. influenza* present in about 66 per cent. of their influenza cases. In only one case was the *B. influenza* the predominant one. Inigo<sup>8</sup> found the streptococcus in the pleural effusion of influenza cases. Spooner, Scott and Heath<sup>9</sup> studying the cases at Camp Devens, Massachusetts, iso-

lated the *B. influenza* from the sputum, pleural fluid and naso-pharynx during life, and from the heart's blood, lungs and accessory sinuses post-mortem in a high percentage of their cases. Lord, Scott and Nye<sup>10</sup> found much the same. With regard to the influenza bacillus these authors think that there is sufficient evidence from their enormous presence (to the practical exclusion of other organisms in many cases), in the sputum during life and in the lung tissues after death, to suggest that they are important contributors or principal factors in causing the pathological changes in man. Stone and Swift<sup>2</sup> reporting from Fort Riley, Kans., find the *B. influenza* or some unknown associated virus responsible for the initial outbreak but that the pneumococcus and hemolytic streptococcus were the agents for the pneumonia, and in 162 recovered cases the streptococcus hemolyticus was not found in the sputum. It was found in only 1.7 per cent. of 300 naso-pharynx cultures, yet in 55 pneumonia autopsies this organism was obtained in 41 per cent. of the tissue cultures; and in 41.5 per cent. of the pleural fluids of patients operated for empyema. This organism seems undoubtedly an important factor in the mortality.

Baccaroni<sup>11</sup> and Betchov<sup>12</sup> think there is a double virus, the first a filtrable infra-microscopic one, the second being an ordinary germ such as the pneumococcus. Florand<sup>13</sup> cultivated the *B. influenza* in 58 per cent. of the blood, pleural fluid, etc. of his cases. Gibson and Connor<sup>14</sup> in England confirm the earlier observations made in France by Nicolle and Labailly<sup>15</sup> concerning the etiologic part played by some filterable virus in influenza cases. Monkeys inoculated with sputum from human influenza cases became ill on the 6th to 7th day and the pathological condition found closely resembled these in human influenza cases. Experimental research instituted by the U. S. Government both in the public health service and in the U. S. Navy have however in both cases failed to experimentally transmit influenza by inoculating human subjects with the virus. The etiology of influenza is not absolutely understood, but it is undoubtedly a specific disease due perhaps to some bacillus yet unknown or unsuspected. The complications arising from influenza, are many and affect principally, the lungs, pleura, brain and accessory sinuses. Heart, kidney, nervous and mental sequelæ<sup>7</sup> may in some cases be very marked.

The most commonly observed complications are: pleural effusions with empyema cerebral edema, meningitis, otitis media, sinusitis, pericarditis and nephritis. Stone and Swift found that 17.2 per cent. of their influenza cases de-

veloped pneumonia with a 35 per cent. mortality. About one-sixth of Bloomfield and Harrops<sup>1</sup> patients developed pneumonia with mortality 32 per cent.

Empyema usually develops in about four weeks after onset. Max Ballin<sup>16</sup> operated seventy-nine empyema complications with eleven deaths.

In 62 per cent. of these cases there was a pure pneumococcal infection and a mixed pneumococcal and streptococcal infection in the others. Deaths were about equal in both groups. The effects of the brain edema produces both functional and organic nervous disturbances. Moore<sup>3</sup> believes these to be toxic in origin. The psychoses resulting are varied and numerous cases of delirium, hysteria, and hypochondriasis are common. Savage<sup>18</sup> thinks of all the infective diseases influenza is the most likely to be followed by mental symptoms, but that they are usually mild.

The pathologic anatomy is such as might be anticipated from the clinical symptoms. Le Count<sup>20</sup> who studied the conditions in 200 influenza pneumonia case necropsies found a relatively small amount of lung tissue solid as compared with ordinary lobar pneumonia. There is abundant thin, bloody exudate in the lung tissues, bronchioles, and pleural cavities. These are not empyemas; there is no suppuration but empyema may occur later. The brain tissues are quite regularly swollen. The pneumonia of influenza is usually considered as a broncho-pneumonia and it differs from other types in its predilection for the periphery of the lungs and in its hemorrhagic character. Stone and Swift<sup>2</sup> found congestion of the cerebral vessels with edema, distention of the lateral ventricles and sub-acute basilar meningitis to be the conditions commonly found at necropsy. These were responsible for the nervous symptoms. Edema of the lungs with bloody expectoration was common in fatal cases.

The treatment of influenza and its complications must necessarily remain unsatisfactory until its definite etiology is fully established. Drugs are well nigh useless and empirical unless symptomatically employed. Serums and vaccines of various kinds have been prepared but there is no unanimity as to their value. Some observers such as Stone and Swift<sup>2</sup>, McCoy<sup>21</sup>, and Emery<sup>22</sup> find them valueless; but others such as Robertson<sup>23</sup>, Rosenow<sup>24</sup>, McGuire and Redden<sup>25</sup>, Bezancon and Legroux<sup>26</sup>, Rapport<sup>27</sup> and Whittingham and Sims<sup>7</sup> have used vaccines and serums of different types with much success. Rosenow and Whittingham and Sims are satisfied that they have a distinct prophylactic and immunizing value, especially polyvalent serums and vaccines.

McGuire and Redden<sup>25</sup> report that at the U. S. Naval Hospital, Chelsea, Massachusetts, the use of pooled serum from convalescent influenza broncho-pneumonia patients greatly reduced mortality, shortened the course of the disease and proved almost a specific not only during the waning period of the epidemic but during its severe recrudescence.

Rosenow<sup>24</sup> reports much the same and is satisfied that polyvalent vaccines afford a definite degree of protection against the serious respiratory infections during influenza epidemics. Seventy-four answers to my question, "What do you consider the best treatment for influenza"? might be well epitomized in one line. "Medicine of little special value, and employed almost entirely symptomatically. Strong supportive diet, great abundance of liquids; absolute rest in bed and plenty of fresh air." In answer to the question, "Did you use a prophylactic serum?" and "with what results?" sixty-one answered in the affirmative, and they generally report few cases after the use of the three inoculations and those cases slight, brief duration, and devoid of serious complications, and almost no deaths. It would be interesting if time would permit to quote from many of these interesting letters so kindly sent by the profession. Pardon me if I quote the following paragraph from Dr. Rosenow's article from the American Medical Association Journal, January 4, 1919. Some of the results are as follows:

"Of 1,000 persons employed by one company, 481, about one-half, received one inoculation; 224 received two inoculations, and ninety-five received three inoculations. From October 28, the date of the first inoculation, to December 8, 138 cases of influenza occurred, only twenty of which were among the persons who had had one or more inoculations. Of these, fourteen had had only one inoculation, and the remaining six had but two inoculations. There were thirteen deaths, only two of which followed influenza among the inoculated, and in these two cases only one inoculation had been given. My own series is so small including only a little over one hundred cases in which the serum was used and out of these cases only two developed subsequent influenza. One of these cases had one inoculation, the other had two, and neither of them confined to the bed more than two days. As result of the questionnaire as near as we can estimate, the tabulation covers approximately two thousand cases, with few cases of very mild influenza and almost no deaths. Far too large a percentage in favor of prophylactic serum to be merely a coincidence and enough to make us seriously reflect.

The classification of anterior poliomyelitis—infantile paralysis—is a disease of unknown etiology will perhaps be criticised in the face of the findings of Flexner<sup>37</sup>, Rosenow<sup>38</sup>, Nuzum<sup>39</sup> and others with regards to the microbial origin of this malady. Yet the fact remains that definite proof of the specific character of the agent is still lacking. It is unnecessary for me to enter into details regarding the wide extent of the disease and of the havoc wrought by it on the most valuable part of the population. Suffice it to say that it has been estimated that five-sevenths of all cases of anterior poliomyelitis occur in the United States. We are therefore vitally interested. The prodromal symptoms of the disease are not in any way characteristic. The anterior poliomyelitis of children in the beginning shows more or less fever; gastro-intestinal symptoms are usually pronounced, there being vomiting and diarrhea in most instances with mucus in the stools; the pulse is usually rapid and out of proportion with the evidence of intoxication; there is headache, irritability and great general restlessness with tremor and twitchings and a rigidity of the neck and spine with positive Kernig's and Babinski signs.

There is as stated nothing essentially characteristic in these symptoms. It is in the paralytic stage that the disease is clinically recognized, and proved by the laboratory findings. Spinal puncture shows the spinal fluid clear, or only slightly turbid and under increased pressure if this fluid contains an abnormal number of cells chiefly mononuclear and an increased globulin content. Then if the above clinical symptoms or most of them have been manifested and the blood examination discloses marked leukopenia, a diagnosis of anterior poliomyelitis may be made. The interest of physicians is at present however more directly concerned with the prevention and treatment of poliomyelitis than with its recognition. A very large amount of valuable experimental research on this disease, regarding its etiology and treatment, has within recent years been done in the United States. In fact all the important work has been done here. The work of Flexner<sup>36</sup>, Nuzum<sup>39</sup>, Rosenow<sup>38</sup>, Hektoen<sup>40</sup> and others have demonstrated the constant presence of microbes in the brain and central nervous which leave little doubt as to a specific agent. While the exact morphological nature of this agent may not be agreed upon there is unanimity with regard to the presence and distribution of such an agent. In human poliomyelitis cases and in experimental poliomyelitis cases in animals these authors have constantly been able to isolate a pleomorphic coccus which on inoculation into animals produces the disease. By repeated intravenous injections

of cultures of the poliomyelitis coccus referred to into animals a high potency serum has been produced by Rosenow<sup>38</sup>, Nuzum, Willy<sup>39</sup> and others. In fifty-one cases of human acute poliomyelitis in which Rosenow used this immune horse serum and in which it had a fair trial there were only three deaths (6 per cent.) whereas in the untreated cases the mortality was 35 per cent. Usually 50 per cent. of poliomyelitis cases develop more or less paralysis. Eighteen per cent. of fifty-four patients treated by Zingher<sup>48</sup> with immune human serum developed paralysis; 29 per cent. of Amoss and Chesney's patients<sup>47</sup> developed paralysis; and 31 per cent. of Peabody's<sup>52</sup>. In Rosenow's series of sixteen pre-paralytic patients treated by horse serum none developed paralysis and none died and in cases where a paralysis was already manifested there was no extension of it. Nuzum<sup>39</sup> verified Rosenow's results in the experimental poliomyelitis of monkeys.

Perhaps I cannot do better here than to quote the summary of Rosenow with regard to this serum. He says "The serum used appeared to have a prompt and powerful beneficial effect. \* \* \* Its harmlessness is demonstrated and its use on a large scale indicated. The treatment should be given before paralysis has developed, hence early diagnosis by spinal puncture should be made. The course of the disease should be considered in hours not days particularly now that there is available what appears to be a curative serum. The serum is of distinct benefit at least as long as postparalytic pains are present and the spinal fluid is positive."

From the questionnaire, forty-eight had seen no cases of anterior poliomyelitis. Twenty-six responded affirmatively having all from a single case to twenty-nine. In most of these cases serum was employed with generally beneficial results, very few deaths and little paralysis or permanent impairment of function. We have had two epidemics in Iowa within the last two years. In Davenport and vicinity 1917 during the late summer and early fall there occurred cases frequent enough to be styled an epidemic with paralysis and several deaths. The profession sent a request to Dr. Rosenow who went to Davenport and remained there five weeks. I will not go into the matter in detail. That you have already. After Rosenow came to Davenport and with the profession employed his serum there was only one death and little paralysis. As I recall, Dr. Rosenow and collaborators treated in all ninety-eight cases with only two deaths and some four or five cases in which the paralysis was at all permanent. At a meeting of the Jackson County

Medical Society, I learned from Dr. Randlemann the success of the serum. In early autumn of 1918 a similar epidemic visited Dubuque, and vicinity and Rosenow came with the serum and with the profession began the administration, with the result that there was only one death, subsequently in those treated with the serum compared to eight deaths the previous week. Recovery in most cases was speedy and save in a few cases complete.

From a careful unbiased study of the experience of these epidemics it is difficult to avoid the conclusion that the serum treatment has virtue, though today many honest scientific men strenuously withhold their endorsement.

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## ROENTGENOTHERAPY AND RADIUM IN SURGERY\*

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Needless to say only a very small portion of such a subject can be covered in one paper. The object is to bring together a more allied working routine between the surgeon, general practitioner,

and the radio-therapist. If each will observe and know the good results obtained together by a harmonious comparison of work and not as we too often find the therapist only seeing the case after the returned post-operative malignancy and not recommended or in harmony with the surgeon so a failure of cooperation exists. So too often the surgeon observes much to his disgust and the loss of the patient later a condition that could have been benefited by surgery a few months previously, treated until all hope is gone by a radio-therapist whose honesty is even less than his scientific attainments. Had he been trained properly he would have had an accurate knowledge of his limitations. So it goes as a rule one observes the shortcomings of the other. Too often the surgeon gives little or no consideration to a therapeutic aid if properly used.

The general practitioner too often when asked his opinion and not having a clear conception of the technique or indications emulates the Irishman, when asked a question he was to vote upon replied that he didn't know what it was but was "agin" it.

At this point I desire to state that in discussing the radio-therapy-reference is only to a proper equipped machine for deep therapy and does not include the usual x-ray machine, which has little or no value in this work. The question of malignancy is becoming such a tremendous factor in economic medicine, that it behooves us to marshal to our aid every device of radio-therapy to act in conjunction and utmost harmony with the newest procedures of surgery, if we are going to reduce the appalling death rate that is becoming greater each year. Let the two work together that each may learn the proper limitations of each other's work, a proper domain for each will be established and one will not assume to dictate beyond his field of proper endeavor.

In speaking of radio-therapy, both x-ray and radium are included, which of these are used will depend on the indications of the case. Most of the profession removed from the large medical centers have little conceptions of the recent strides of perfecting x-ray machines, tubes and other things that can be obtained by intelligent application of this and radium in post-operative malignant conditions. The action and therapeutic effect of the x-ray and radium are almost alike, each have the Alpha, Beta and Gamma rays. The Gamma rays in radium have a deeper effect than in the x-ray. The points of metastasis must be radiated very thoroughly and a very intimate knowledge of the lymphatic drainage in each case.

\*Read before the Tri-State Medical Society, Iowa, Misconsin and Illinois, Rockford, September.

In discussing the following conditions when x-ray and radium can be used to great advantage in surgery am doing it from the standpoint of the surgeon and not as a radio-therapeutist. My attention was first drawn to this work while working in a surgical division in Bellevue hospital in 1917. I followed this line of treatment where indicated and was soon convinced of its merits. The work as seen in Memorial Hospital, New York, where hundreds of malignant conditions were treated cannot leave one in any doubt. It was also my good fortune to observe and follow the treatment of Dr. Bissell, surgical director of radium institute whom I assisted seven months in surgical work.

*Carcinoma of the Breast*—The required surgical removal needs no comment. In a great many cases where a roentgenoscopic is made of the chest post-operative we find mediastinal gland involvement. Most of these cases are never x-rayed and the condition is unknown at the time of operation.

A very important lymph vessel extends from the base of the breast, perforates the pectoralis major, extends upwards along the chest wall to enter the anterior mediastinum through the second intercostal space. Another set of lymphatics run parallel to the muscular fibres toward the sternum and near here they perforate the intercostal spaces to enter the mediastinal glands. The lymphatics of the clavicular portion empty into the retropectoral glands.

Dr. J. C. Bloodgood, professor of surgery at Johns Hopkins University writing in Binnie's regional surgery says:

"When the highest axillary glands are involved and one has made the V-shaped division, and the microscope shows these glands involved, it is quite sure that the chances of permanent cure are not more than 6 per cent."

Here in these two types of cases, where the high axillary glands are involved, and where we find mediastinal involvement, that I desire to impress on your mind so emphatically, that here lies our recurrences and failures in surgery alone. Here lies a distinct limitation of the surgeon's domain here comes roentgenotherapy in all its power and destruction of small blood-vessels by producing edema of the endothelial lining, stopping the nutrition of the growth. A destruction of the nucleus, a cloudy swelling of the cell and the debris being carried away by the phagocytes. Here means a prolongation of life in all cases and a complete recovery in many more by therapy in an otherwise sure recurrence and the loss of our patient.

*Epithelioma of the Face*—Epithelioma of the face above the upper lip, are as a rule Basal cells in type and of a very slow growth. Curetment of the ulcer and superficial therapy by the x-ray will clean up these cases very promptly. Epithelioma of the lower lip, part of the upper lip, tongue and in conjunction with the mucus membrane, are of the squamous cell variety and have a very rapid growth and metastasize very soon. Along with this, cancer of the tongue, tonsils and epiglottis. We all know what it means to see a case of cancer at the base of the tongue or around that section. It has meant a horrible drawn out condition only to be mercifully relieved at the last stages by morphine. Radium here after what can be done by surgery, or radium alone, if taken in any thing like a reasonable time will often stop the progress of the disease. Many of course are not helped, many relieved and made comfortable. A great many that were hopeless cases a year or two years ago are still in good health with only a scar to show the former conditions. How long it will last no one knows, but everything to gain and nothing to lose in these cases.

It is not possible to relate the history of individual cases as it would be too long drawn out. But aim to find a general average of the cases as they come into the large clinics, where from fifteen to forty are observed and treated during the course of the afternoon. The technique followed or the number of milligram hours used for each individual condition will be gladly furnished to those interested. Just one precaution in regard to cancer of the tongue, very often syphilis is confused and if we get a positive Wassermann test too often we depend on the anti-syphilitic treatment and feel that you are doing your full duty. Syphilitic patients are very prone to cancer and may have both. If it does not improve promptly under intensive anti-syphilitic treatments you had better consider malignancy. In cancer, the ulcer is as a rule on the edge single and raised, nodular and hard. While syphilitic ulcer is as a rule multiple, on the dorsum, and the edges are underlined and soft, not so deeply indurated. Great stress should be laid on the early diagnosis, because time here means so much to the patient equally if not more so than any portion of the body.

*Tubercular Glands*—Dr. Wang, reported in the Journal of American Medical Association, June, 1917, the treatment of one thousand cases of tubercular adenitis selected at random from the children's hospital at New York City. Most of these children were in poor condition. Not one of these cases developed pulmonary t.b. as a sequel and the results obtained were very gratify-

ing. My treatment is surgical where there is sup-puration or indications of softening and follow with deep therapy. Otherwise deep therapy alone has given splendid results.

*Hodgkins Disease*—Patients who are filled up with mediastinal glands and suffer from pressure dyspnea, to the extent of being unable to lie down, will receive prompt relief from a few treatments, the conditions improve, but later will relapse. The patient can be kept alive three or four years longer and be made more comfortable but a cure cannot be considered at the present time.

*Carcinoma of the Cervix*—Dr. T. J. Watkins of the St. Luke's Hospital, Chicago, reports in the surgical clinics for April a very typical case of inoperable carcinoma of the cervix. Routine surgical procedures carried out. One thousand two hundred milligram hours given a few days before operation. Six hundred milligram hours was followed at interval of three months for three treatments. Patient was still healthy after two years. I could relate several cases on the same plan of treatments. I do not feel we are justified on using radium or deep therapy in any uterine or cervical condition until all surgical procedures are carried out. This is especially referred to fibroids and hemorrhage during the menopause where the question of malignancy is so uncertain.

*Sarcoma*—Just briefly state that in general with carcinoma, should be operated first and followed by deep therapy or radium, as the soft tissues respond very rapidly. I remember two cases of sarcoma of the groin, where radium was applied in massive doses. This was in 1917, this past summer both were well and had suffered no return. Periosteal sarcoma will not be benefitted by the x-ray therapy.

*Malignant Tumors of the Urinary Bladder*—Malignant growths and urological surgery in general is one of the most scientific and perhaps most often neglected by the men in general practice. They are very unsatisfactory as to either symptomatic relief or permanent cure. Doctors Kolscher and Eisenstaedt of Michael Reese Hospital, Chicago, in writing states:

"This practice is supported by the fact that especially in malignant tumors of the bladder radio-therapy shows a very favorable percentage of clinical cures and palliative achievements. Therapy does not produce any primary mortality, its administration does not lay the patient up, and even if not successful, it does not lead to the unspeakable suffering forced on the patient by recurrences after cutting operations."

Needless to say to do bladder surgery one must

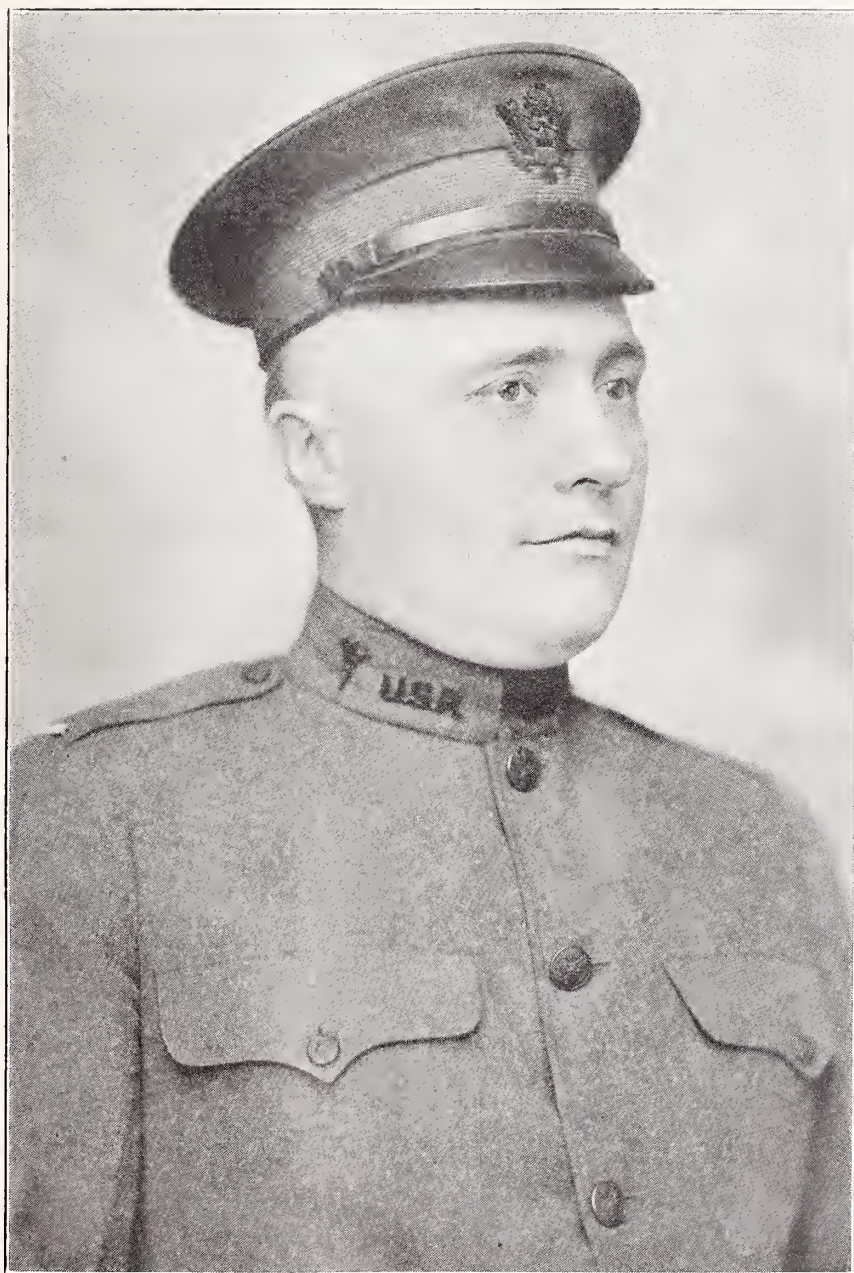
be prepared and trained to do cystoscopic work. My own routine is to begin by making three x-ray pictures of the G. U. track, bladder and each kidney section, if any indications of calculi or anything else the plates may show. Then a cystoscopic examination. Very often the small papilloma or multiple growths can be removed by the cautery through the operating cystoscope. After the examination one can determine if a case for fulguration, super-pubic section and cautery, excision of tumor or whatever the indications of the case call for. It is preferable to follow the operative procedures after the routine examination and use radio-therapy or radium last and not depend on this alone if you could back it up by surgical means. One cannot lay down hard and fast rules but each case presents its own personal indications.

While on urology, it will be pardonable to make a special plea that surgeons in general will give more attention to working up of their cases and to the testing of the kidney functions. One listens to the heart, and examines the urine for albumin, the presence or absence of which in itself is of little or no value. Young and middle aged persons get away with this because nature is kind, in older people test the kidney functions with phenolsulphonephthalein. Also urea-nitrogen of the blood. Many elderly men die because of impaired kidney function following general surgical work that could have been avoided by the proper working up of the case. Too often in elderly men who have a moderate hypertrophy of the prostate and carry from five to ten ounces of residual urine are operated for different conditions and the operator has no knowledge of this condition, because seemingly, the urination has been normal.

No wonder these cases become septic in appearance and do badly post-operative. There are many other conditions treated by superficial therapy but do not care to go into detail.

The object of this paper has not been to go into surgical treatment or technique of the therapy but to simply bring to you the indications where both can be used in conjunction. Many more of our patients will be saved, our reputation enhanced and it is more gratifying to collect bills from grateful patients than to have it collected from the estate.

Major-General Gorges, director of the yellow fever work of the International Health Board has returned from South America, where he endeavored to determine the seed beds of yellow fever, in order to institute systemic measure to destroy the disease at its source.



DANIEL J. GLOMSET

Went on duty as First Lieutenant at Rockefeller Institute, July 20, 1917  
Camp Dodge from August 20, 1917 to June 1, 1918  
Promoted to Captain, October, 1917  
Promoted to Major, March, 1918  
Overseas from June 1, 1918 to February 7, 1919  
Discharged February 20, 1919



## THE LABORATORY SERVICE OF DIVISIONAL LABORATORIES

CAPTAIN LUCIUS A. FRITZE

(Continued from November Number)

SPECIAL NARRATIVE OF THE SERVICE IN A  
TYPICAL DIVISIONAL LABORATORY

The following brief outline is the actual experience of one of these units which operated continuously throughout the duration of the war—the laboratory of the 42nd (Rainbow) Division. This unit was organized as a part of the division at Camp Mills, Long Island, New York, in September, 1917. The personnel assigned to duty consisted of three officers—one captain and two lieutenants—with an enlisted personnel of four men. One officer was a pathologist, one officer a bacteriologist, and the third a chemist and bacteriologist familiar with water supplies. The enlisted personnel was untrained. The equipment assigned to the organization was the standard field laboratory chest equipment of the medical department.

This organization was equipped with personnel and equipment to carry out such work as the pathological and bacteriological work from the hospitals, epidemiology, general bacteriology, water analyses, water surveys, milk analyses and milk surveys.

The entire personnel with the equipment left Camp Mills with the division during the latter part of October, 1917. Upon arrival in France during the early part of November, the organization was stationed at the divisional camp hospital located at division headquarters in the Vaucouleurs area, and functioned under the direction of the division surgeon. Accommodations at this location were very poor. The quarters assigned to the laboratory were small and dirty, the standard equipment received while at Camp Mills had unfortunately been lost in transit overseas.

The character of work to be undertaken by the laboratory while in the field, the extent to which the service could be carried and the responsibility to be assumed, had not been defined. However, within a few days after reaching this location, some of the duties became apparent. Meningitis developed in the division and it became necessary for the laboratory to confirm the diagnosis. By chance a microscope was borrowed and the supplies necessary to complete this examination were rustled, and, fortunately, the laboratory was able to give valuable assistance. Supplies for making bacteriological examinations of water were purchased from French drug stores. An incubator, made from a soap box, the cracks filled in with

cotton and the heat furnished by a candle and electric bulb, was set up. Pipettes and fermentation tubes were made from glass tubing. With considerable difficulty it was possible to make two bacteriological analyses per day. The experience gained during the short time the laboratory functioned in this area taught a very valuable lesson to the officers and men, in that it showed clearly the true value of laboratory equipment and the necessity of preserving the same at whatever the cost.

The work continued in this location until about the middle of December when the division moved to the Seventh Divisional Training Area with Rompont, Haute Marne as divisional headquarters. By marches the division reached this location about the last day of December. The laboratory was stationed at division headquarters and functioned under the direction of the division surgeon. One room, 15x20 feet in size, with no water, no light and very poor heating arrangements, in a private home, was obtained as quarters. The equipment and supplies had been materially increased by requisitions on Army Laboratory No. 1 at Neufchateau. With this equipment effort was made to complete a water survey of the entire divisional area including some seventy villages. Included in this survey was the determination of the quality and quantity of water available in each town, the location of all water mains, the sources of supply, the village fountains and wash houses, and the arrangement of this information on a complete set of maps. Together with this work the epidemiological work of the division and the work found in the camp hospital was cared for. No transportation had been assigned to the unit and in completing this work it had been necessary to use trucks, ambulances *et cetera*.

By early in February this work had been completed and on the completion of this work the laboratory moved from Rompont to Langres, locating in the camp hospital. The hospital, centrally located, made a more favorable location for the laboratory. Two rooms, one 25x30 feet and the second 10x12 feet, both with tiled floors, hot water, heat, gas and electricity, provided very excellent quarters. A large variety of work was undertaken including all the work arising in the camp hospital, epidemiological work of the division and the examination of both raw and treated water from the Lyster bags.

On February 17 the laboratory accompanied the division to the trenches in the Luneville-St. Clement sector. One officer and one man from the unit remained at Langres to care for the work arising in that place, since the personnel of one

of the divisional field hospitals remained to operate this camp hospital. The standard field laboratory equipment shipped to France at the time the division left Camp Mills, reached the laboratory at this time. With this equipment and the supplies that had been gathered from time to time, a very compact, well equipped, chest outfit was made up. The section of the laboratory accompanying the division to the front was stationed at division headquarters in the City of Luneville. Quarters were obtained in one of the hospitals. The room occupied was some 35x40 feet, formerly a college laboratory with water, gas and electricity available. An unusual variety of work was accomplished in this location. The usual work from the hospitals, wound bacteriology, spinal fluids, pus, urine, feces, sputum, blood counts, vaccine, diphtheria, meningitis, water and field survey work in water supplies and epidemiology was completed.

The division remained in the trenches in this sector until about the 21st of March. At this time plans called for the division being moved from the lines and sent back to a training area for a rest, but due to the initial German drive of the spring, 1918, being launched on this day against the English army, it was necessary to assign the division to a new sector. The trenches taken over was the Baccarat Sector, the first sector to be held intact by an American division alone. The laboratory was established at Baccarat, the headquarters of the division. In this location the laboratory found quarters in an old public building. One room, 15x20 feet, with electric light, but no water or other conveniences, was used. In this location, operated entirely by the Americans, opportunity was given to undertake work not possible while brigaded with the French. The laboratory functioned as a separate unit under the direction of the division surgeon. The work of the field hospitals and venereal hospital was placed on a routine basis and effort was made to give laboratory assistance very similar to that found in civilian practice. The laboratory was operated very similar to both a board of health laboratory and a civilian hospital laboratory. The survey of the water supplies in the area was completed with all the data concerning the quality, quantity and availability charted on maps. In those sections with insufficient water, concrete water points were constructed. The scope of the work undertaken was extensive considering the facilities at hand. Some of the work accomplished in this area is as follows: blood counts, pus, diphtheria, urinalysis, sputum, spinal fluids, wound bacteriology, meningitis, chemical analyses of water for poisons, water bacteriology, blood

gathered for Wassermanns, examination of food-stuffs, venereal, malaria, examinations for free chlorine in sterilized water, *et cetera*.

The organization operated as though in a permanent location. The work in the various organizations being placed on routine basis and the work simplified as much as possible. The work in epidemiology in conjunction with the division sanitary inspector was of very great importance. Contacts from diphtheria and meningitis were cultured in all parts of the sector. The assistance given in determining the presence of typhoid, paratyphoid and dysentery was exceedingly valuable. Visits were made by members of the laboratory to all parts of this sector in the various investigations undertaken. The division remained in this sector during the last of March, April, May and the first part of June. The work toward the latter part of the occupation of this sector was so organized and systematized that the laboratory corresponded very much to one found in a city board of health or hospital and functioned as though in a permanent sector.

During June word reached the division that due to the wonderful success of the German armies against both the English and French, an assault on the division's sector might be momentarily expected. The laboratory was advised to be packed up, prepared to leave the village within two hours time. Under such conditions the laboratory functioned caring for all work arising and making no effort to minimize the amount of work. On June 19th the organization moved from Baccarat to Chatel-sur-Moselle as the first leg of a jump to the Chalons area of the Champagne Front. By June 23 the laboratory reached its destination near the City of Chalons.

The uncertain conditions under which the division was expected to operate in this section did not permit the organization to open its equipment at once. After several days sojourn, orders were received that the division would be stationed in the new location for some little time and the laboratory was permitted to open. A room 20x20 feet in an old chateau, with no gas, no light and no water was obtained. The work in examination of diphtheria, urinalysis, water, *et cetera* was undertaken.

By June 29 the organization again moved some thirty-five kilometers to the village of Vadenay. This village was some twelve kilometers from the front line in a very exposed position and a very serious German drive momentarily expected. With the crowded conditions existing in Vadenay, very limited quarters were obtained—a single room 15x15 feet, with no water, no gas and no electricity. In this limited space large exten-

sive laboratory work was impractical. Work in epidemiology, such as contacts for diphtheria was undertaken, some urinalyses, investigation of water supplies, etc. The hospitals were located at a very considerable distance from the laboratory but liaison was arranged and the necessary work completed.

The water supplies throughout the entire area were in the hands of the French. The area being arid, required the development of a very large number of wells with pumping equipment and overhead tanks. The water was sterilized by means of javel in an automatic treatment. These water points extended to within about two kilometers of the front line and metal pipes carried the water to the trenches. The work of the laboratory in the water supply survey consisted of checking the water points for the presence of free chlorine and advising the various units of the division the location of the most convenient water point.

The laboratory remained in Vadenay until July 12. On July 12 request was made by an advance evacuation hospital located at Ecury-sur-Cooles for the services of the divisional laboratory if they could be spared. Due to the fact that a Mobile laboratory was established within the divisional area, the entire field laboratory with the exception of the water supply officer was sent over to Ecury-sur-Cooles. The unit was expected to function during the impending battle. The water supply officer remained at Vadenay at the office of the division surgeon completing the work of the water survey.

On the afternoon of July 14, due to the inability of one officer to handle the water supply work without the assistance of the laboratory this officer was sent to the laboratory with instructions to work from that location along the front, returning with all water specimens for analyses each evening. On the night of July 14 the battle broke. The whole area from the front lines to twenty miles in the rear was under bombardment. The divisional hospitals in the area were subjected to very heavy bombing and shelling with the result that before 9 o'clock in the morning the hospitals were so badly damaged that immediate evacuation became necessary. These hospitals moved some twenty kilometers below, to Ecury-sur-Cooles.

On the morning of July 15 the commissioned personnel of the unit was reduced to two by the assignment of the pathologist to the central department laboratory at Dijon. The uncertainty as to the character of work expected of the laboratory at this location did not permit the laboratory to prepare for some of the work which arose.

It became apparent, early on the morning of the 15th, that a considerable amount of wound bacteriology would, of necessity, require being undertaken. With the destruction of the hospitals in the divisional area and the forced evacuation, a large amount of laboratory supplies of the Mobile laboratory were lost. So short of supplies was this laboratory that it could be of no assistance to the divisional laboratory. A telephone call was sent through immediately to army laboratory No. 1 at Neufchateau requesting the necessary supplies. By day light the following morning these supplies were received.

The space allowed the laboratory at this time was a tent 12x18 feet with a fly in front. The laboratory was opened to handle as much work as possible and yet so packed that if immediate evacuation became necessary the organization could move in two hours time. With such heavy casualties as encountered in this battle, three hospitals were kept busy operating on the wounded. Early calls for Dakin's solution and di-chloramin-T were made. With the assistance of the Red Cross sufficient large containers were obtained to prepare large quantities of these solutions. With the help of one man from the hospital and the regular laboratory force, a twenty-four hour shift was maintained. The hospital at Chalons and the double hospital at Ecury-sur-Cooles were supplied with these solutions. Hundreds of gallons were prepared in the few days the division remained in this sector. The other work undertaken was diphtheria, wound bacteriology, blood counts, urinalyses, throat smears for Vincent's angina and the checking of sterilized water for the presence of free chlorine.

Due to the very limited amount of transportation available and the uncertainty of the laboratory being able to keep abreast with the division, orders were issued detaching the laboratory from the office of the division surgeon and assigning it to the headquarters of the sanitary train for station. At this location the organization functioned until September 22.

With the definite repulse of this German drive and the successful launching of the counter attack between Soissons-Chateau Thierry, the division was relieved from duty on the Champagne front and ordered to the sector at Chateau Thierry. The division proceeded, using both trucks and train for transportation, and arrived in the line, relieving the Twenty-sixth Division north of Chateau Thierry on July 24. The laboratory was stationed at La-Ferto-sous-Jourre, Luzancy, Villers-sur-Marne and Chateau Thierry. The bulk of the laboratory remained with one of the operating hospitals while the water supply of-

ficer with one man proceeded ahead examining water supplies for suspected intentional poisoning.

On July 27 the entire laboratory unit was established in an old French and German hospital in Chateau Thierry. Two field hospitals had been united to form an advanced evacuation hospital. The bulk of the laboratory functioned very similar to that at Ecury-sur-Coole. The work consisted of the preparation of Dakin's solution, di-chloramin T, wound bacteriology, diphtheria, urinalysis, pus analysis, and the examination of water bacteriologically and for the presence of poisons. The quarters available was the pharmacy room of the hospital. With the clearing away of the wreckage found at the hospital, a room 15x20 feet, with no light, no heat, no water, made a fairly satisfactory location.

Transportation difficulties were very serious. All available trucks were needed for ammunition, food and the evacuation of the wounded. Casualties were so heavy and the operating so heavy, that every effort was made to utilize the available transportation to evacuate the operated as quickly as possible. With a motorcycle and side car, in very bad condition, the water supply officer had great difficulty in reaching the extremes of the divisional sector. By the use of borrowed transportation, ambulances, trucks, *et cetera*, a large part of the sector occupied by the division was covered. Water supplies were found to be very badly polluted, but laboratory examinations failed to reveal the presence of poisons suggesting intentional poisoning. However, all water supplies found in the entire sector showed gross pollution.

Several days after the entrance of the division in the line, a type of dysentery developed. Investigation by the laboratory was immediately started to determine the cause. With the great wastage of life and the decomposed animal matter, a plague of flies developed. All foodstuffs became badly contaminated and with the grossly polluted water, the dysentery developed at an alarming rate. As an emergency precaution, recommendations were sent throughout the division to treat all water supplies in the Lyster bags with six times the normal amount of calcium hypochlorite, this overtreated water to be used at meal times in place of coffee. At the time of this recommendation, it is safe to say that 75 per cent. of the troops in this battle were affected with diarrhea. With the use of the over-treated water a large per cent. of the command began to clear up.

The laboratory remained in Chateau Thierry for the first two or three days of August and then moved first to St. Germain and then to Beuvardes. The work arising at this time neces-

sitated the laboratories being taken away from the hospitals temporarily and assigned to division headquarters to care for the great amount of work arising along the front. At this location in Beuvardes the laboratory functioned under the direction of the division surgeon and the sanitary inspector. Two rooms, 12x15 feet each, in a badly demolished house with the room so covered with flies that the walls and ceiling were black instead of white, were used as a laboratory. The entire equipment of the organization was opened and a survey of the area made to determine the cause of the apparent dysentery, examining water for bacteria, poisons and checking Lyster bags for free chlorine; the examination of pus, blood, amoeba, hook worm examinations, diphtheria, urinalysis, *et cetera*. The work continued at this location until August 12 when the division was relieved and ordered to move back to the rear. The laboratory was then stationed in the village of Luzancy and the work undertaken in this location consisted of the bacteriological examination of water, checking Lyster bags for free chlorine, urinalysis, sputum, blood and malaria examinations.

On August 16 the entire division moved from the Chateau Thierry sector to the Third Divisional Training Area, division headquarters located at Bourmont. The laboratory was detached from its temporary assignment to the division headquarters and assigned to the headquarters of the sanitary train. Quarters were established in a tent. The work of a camp hospital located within a short distance of the sanitary train was cared for by the laboratory besides the general field work undertaken. While at this station the unit functioned very much the same as in a permanent sector, as much work as possible being placed on a routine basis.

On August 28 the organization moved to Longchamp as the first leg of the move to the St. Mihiel sector. The laboratory was stationed at Longchamp for several days and the usual work arising within the division cared for. Quarters were established in a room 12x16 feet, with no conveniences whatever. During the sojourn in this village, which was in close proximity to army laboratory No. 1, effort was made to re-equip the laboratory with the necessary supplies to meet the work arising in the field. Enough supplies and equipment were obtained to carry the division along for a very considerable time. Starting on the night of September 6, the organization began a series of night marches which brought the division north of Toul and ready to engage in the battle of St. Mihiel, which began in the morning of September 12. During this period of advance

only the most important work was undertaken by the laboratory. Effort was made to survey all the water points in the area to be occupied by the division and through the assistance of the French, the water supplies in the villages and towns for a distance of thirty kilometers on the German side of the line were charted. The location of the rivers and creeks and the best location for water points were determined. By this means it was possible, during the battle to have a definite idea of where to establish water points.

During the night of September 11th the laboratory remained in the woods Bois-de-Boucq and on the morning of the drive was advanced to within less than three kilometers of the original front lines before 9 o'clock. The laboratory was established in a dugout and was prepared to handle the usual work arising during battle. The water supply officer proceeded ahead with the infantry, collecting samples of water for poison analyses and selecting satisfactory water points. The water samples collected that day were analyzed and several satisfactory water points selected. The following morning the water supply officer with the division sanitary inspector communicated findings to the headquarters of the water supply engineers. This unit consisted of expert water supply engineers whose duty it was to furnish the personnel and the supplies necessary to build water points. Request was made for the immediate installation, at four places, of the equipment necessary to produce satisfactory water for the troops. Within a very short time a steri-lab for filtering, sterilizing and pumping water; and a chloro-pump for chlorinating water, were on their way to the advanced divisional area. Men were stationed at two other points with chloride of lime solutions, adding it to the water wagons as they were filled.

On September 14 the laboratory was packed up and moved to Essey, some thirteen kilometers north. The triage and gas hospitals were located in this town. The first four or five days at this location the laboratory was established along the road, between trucks, in fields, or any convenient location that could be found. No cover was available, no buildings were available and no tents were available. However, in spite of these embarrassments, the laboratory opened and endeavored to function. On the sixth day a little room 6x10 feet, the remains of a once prominent building of the village, with a very badly leaking roof and holes in the walls, was obtained for laboratory quarters. Rubber blankets were placed on the roof and in the windows and by means of constant supervision the equipment was kept dry. The usual work arising during battle activity was

cared for and special effort made to supply the troops with safe drinking water.

By this time it had become very apparent that if the laboratory was to play the part in a division that it should, and not be made a minor unit, it would be necessary to have the organization detached from the sanitary train and assigned to duty as a part of the division surgeon's office.

On September 23 orders were received detaching the organization from the sanitary train and assigning it to duty as a part of the division surgeon's office. The organization moved to division headquarters in the village of Ansauville and obtained quarters in a room 20x20 feet, in a private house with no conveniences whatever. The laboratory opened and cared for the following examinations: urinalysis, examinations of German anti-tetanus serum, bacteriological examination of water, examination of water for poisons, and diphtheria. Three days later the organization moved from Ansauville to the village of Bouconville. The laboratory opened immediately upon arrival in a room small, dirty, insufficiently protected against the elements and with no conveniences. Field work and the necessary laboratory work in connection with water supplies, some epidemiological work and some minor work arising in the field hospitals was cared for.

On the first of October the organization left Bouconville for the village of Benoite-vaux as the first leg of the move to the Argonne forest. For several days it was necessary, due to the uncertainty of the future, to store the equipment. However, on October 3 the water supply officer with sufficient equipment to complete water poison analysis and with sufficient bottles for the collection of samples for bacteriological examinations, these samples to be sent back to the laboratory, proceeded ahead with the division sanitary inspector to the advanced sector in the Argonne to be taken over by the 42nd Division. The advanced echelon was located at Recicourt, some twelve miles west of Verdun. Several days later headquarters moved to Dombasle and from Dombasle to Cheppy. During this period a survey of the available water sources was made and in conjunction with the water supply engineers, the necessary water points for the use of the troops were installed.

About the middle of October the 42nd Division relieved the First Division in the Argonne and continued the Argonne drive. The laboratory was stationed in the village of Cheppy at division headquarters, procuring quarters in the entrance of a dug-out, using the tunnel to the rear during shelling and aeroplane raids. The laboratory was opened and the usual work undertaken during

battle completed. Such work as examination of water for the presence of poisons, bacteriological examination of water, checking of water wagons and Lyster bags for the presence of free chlorine, diphtheria, urinalyses and sputum analyses.

On October 21 the organization moved further north to the village of Baulny situated so close to the line that the majority of buildings were completely demolished. The officers and men lived in dug-outs while the laboratory was placed in a church. The church, a ruined building, quartered German pill-boxes in each end and in the middle the field laboratory. The building was so badly demolished that it was necessary, in rain storms, to constantly shift the equipment to keep it dry. However, the laboratory functioned, completing the usual work arising during battle. Periodically, day and night, the village was shelled and bombed. During this period the question of supplies became very serious. The division had advanced a very considerable distance on the German side of no mans land. The roads, naturally in very poor condition, were congested with traffic so that advanced supply depots were inaccessible and laboratory supplies could not be obtained. During this period the large quantity of supplies gathered while the division was in the vicinity of army laboratory No. 1, about September 1, enabled the laboratory to be of assistance to other laboratories functioning along the front.

On the morning of the first of November the artillery, at about one o'clock, opened the barrage of the last great American effort during the war. At day light the infantry jumped off and the 42nd Division, relieved by the Second Division during the preliminary stages of this offensive, followed in close pursuit as reserve troops. The battle very shortly developed into a rout for the Germans, the army advancing at times a kilometer an hour. With badly damaged roads and heavily congested roads it was not possible for the laboratory to advance its quarters until the morning of November 3. Meanwhile, whatever work was available during such periods of activity was cared for by the organization.

On the morning of November 3, the laboratory, with a considerable amount of equipment of the division surgeon's office and personnel from both offices, all on board a 3-ton truck, left Baulny for an advanced location. Due to the extreme rapidity with which the troops advanced, confusion arose over the location of headquarters and the various regimental P.C.'s. The organization traveled all day, all night, and the following morning at day light reached the advanced town of Authe. The village was under shell fire at the time and it was evident the location was too far

advanced for the laboratory to function, caring for both the field work, water supplies and the work arising in the hospitals. Orders were received for the organization to leave Authe and establish quarters at Briquenay, some five kilometers to the rear. Quarters were established in a room 12x28 feet in an old German barracks, a location very satisfactory when compared with previous quarters. With troops advancing at such a rate as in this engagement, the water supply officer was compelled to be away two or three days at a time in order to satisfactorily care for the work arising. All data relative to the location of satisfactory water points, the chemical and bacteriological analyses and accessibility to troops was communicated as soon as obtained to the water supply engineers. The engineers, in turn, either supplied steri-labs or chloro-pumps, or stationed men at the various points to chlorinate the water as it was taken by the various organizations. The usual work arising in the field hospitals during such periods was cared for. The work continued until the division reached Sedan. On November 9, a platoon of the Rainbow Division and a platoon of the French Army to the left, entered Sedan. The following morning the entire Division was withdrawn from the front under orders to proceed to the area of the second army, preparatory to taking part in the drive of November 14.

On November 11 the armistice was signed.

Plans were immediately changed, the Division received orders to remain in its present location, re-equip itself preparatory to entering Germany as a part of the Army of Occupation. On November 13 the laboratory left Briquenay for Buzancy. Due to the uncertainty as to the time the Division would remain in this location, but anticipating an immediate move, the laboratory was not opened except for the equipment necessary to make examinations for free chlorine in sterilized drinking water. The following morning the organization left this location on the first leg of the move toward the Rhine river. The Division being scattered along road ways during these marches, the laboratory was not unpacked.

The Division moved through northern France and Belgium and reached a temporary location at Mersch, Luxemburg. The organization remained in this village for nine days. Quarters were obtained—a room 12x18 feet with electric light and running water. The equipment was unpacked, liaison established with the hospitals and the various kinds of work in the division undertaken. Diphtheria, bacteriological examination of water, urinalyses, malaria, *et cetera*, was some of the work completed.

Beginning with the march on the first of December, the laboratory accomplished very little work until its arrival at Adenau, Germany, on December 9. The organization remained in this village for six days. Very satisfactory quarters were obtained in this city. A room in a hotel with electric light and running water was available. Water examinations were undertaken, urinalyses, blood for malaria and spinal fluids for meningitis.

On December 15 the laboratory left Adenau for Ahrweiler, Germany, the ultimate destination and the city to be held during its sojourn along the Rhine river. The first quarters obtained in this city was a room 30x30 feet, in a school house, with gas light and running water. Later two elegant rooms in a German hospital were requisitioned. The work accomplished in this location corresponded, in a large degree, to the work found in a board of health laboratory. The division being once more in a permanent location, permitted work to be undertaken which could not be completed while the division was in active combat. The work was very rapidly expanded until the effects of the laboratory service were being felt in a large variety of work. Bacteriological examinations of water both raw and sterilized, a survey of the water supplies in the entire area, recommendation for the installation of liquid chlorine and bleaching powder for source chlorination for the municipal supplies wherever needed, a survey of the milk supplies including bacteriological examinations, diphtheria, meningitis, blood, carriers for typhoid, paratyphoid and dysentery; urinalyses, sputum, blood counts, blood collected for Wassermanns, *et cetera*. The hospitals were located at Neuenahr, some three kilometers from Ahrweiler, so all work in the hospitals was placed on a routine basis.

During the month of January, in addition to the large variety of work being undertaken, the satisfactory courier system was established and services of the laboratory were utilized in an investigation of the food condition of the German people as well as their living conditions, and the information gathered reported to the commissioner of civil affairs. From the large amount of typhoid and paratyphoid present among the civilian population and the occasional sporadic case of diphtheria and meningitis, it became necessary for the laboratory to undertake the necessary work in connection with the civilian population simply as a matter of precaution for the protection of the American soldiers.

Towards the latter part of January the old standard field laboratory equipment of the medi-

cal department which had seen service with the division throughout the duration of the war, was salvaged and in its place a large, 8-chest, expandable laboratory outfit supplied. With this new equipment, both extensive and plentiful, it was possible to undertake work on a much larger scale. The new quarters established at this time in a German hospital, proved to be a very excellent location.

Throughout February and March the laboratory work was continued along the standards set in December and January with the addition of a large amount of work from the newly organized venereal hospital. In anticipation of returning home, every effort was used within the division to free itself of all venereal cases. Such work was always confirmed by the laboratory. Cases of diphtheria and meningitis developed and the laboratory proved of great value in both the confirmation of the suspected cases and in culturing and caring for contacts. The work of the unit was continued until March 24, when orders were received by the laboratory to salvage the equipment to the third army preparatory to entrainment for home.

On April 5 the laboratory departed from Sinzig on the first leg of the trip to the United States. Passing through Brest with the division, it reached its final destination at Camp Merritt, New Jersey and there, on May 10, the unit was demobilized.

(Continued in January)

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#### DISCUSSION OF DR. L. E. KELLEY'S PAPER

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(Published in October Number of the Journal)

Dr. A. C. Page, Des Moines—I am glad to see a paper on an obstetrical subject take such a prominent place on the program of the Iowa State Medical Society. Certainly no subject would be of more interest to a greater number of us than the one that has been so ably presented by Dr. Kelley. A paper on some difficult surgical operation or on the diagnosis of an obscure disease would doubtless be of interest to many, but these procedures may be carried out at leisure or may be referred to distant hospitals, whereas the fact that the repair of tissues injured during labor should be done at the time by the obstetrician in charge lends an added value to this paper to all of us. In general I am in accord with what Dr. Kelley has said. There are, however, two or three matters about which there is some difference of opinion. For many years we have repaired cervical injuries which occur at labor only when they have been extensive or when there has been excessive hemorrhage calling for this repair. I am a little slow to accept the statement that all cervical tears should be repaired immediately following labor. I under-

stand Dr. Kelley to say that this is true in hospital practice, but not in bedside practice excepting where there is hemorrhage. It is a rule in primipara that there is some tear. Many of these will heal satisfactorily without operative intervention. If it is dangerous to examine by the vaginal route before labor has taken place, it certainly seems to me that there is some danger of infection in the thorough examination necessary to find these tears and repair them following labor. The current of everything is out of the body before the labor is completed, whereas afterwards the current is the other way. And I think there is at least a little more liability to infection from proceedings carried out following labor than before the third stage is completed. It is difficult to make an accurate approximation of the cervix. I do not think it is easy always to do this where, as Dr. Kelly suggests, the cervix is dilated, there may be considerable edema from long continued labor, and if this approximation is not properly made an interference with drainage from the uterus occurs, and there is therefore a little more liability to absorption on account of this interference with drainage. Dr. Kelly stated that the use of silkworm gut in perineal repair is out of date. If that is true I am out of date entirely, because I still use it for the stitch which comes out on the perineal surface. I have had quite universal success in the use of the silkworm gut for this purpose. Sometimes when I have employed catgut for the stitch which came out on the perineal surface it has been absorbed before I wanted it to be. I cannot see any harm in the silkworm gut stitch if not tied too tightly. Often they are, I believe, tied too tightly, when they will cut; but properly placed and properly tied, for the stitch which comes out on the surface I still like the silkworm gut. For the buried stitches, in order to approximate the muscle ends carefully, the catgut should, of course, be used. Another point that was, I think, very well taken by Dr. Kelley is that with reference to the attention which should be given by our hospitals to the lying-in room. The surgeons in the operating-room seem to get most of the attention. It is no trouble at all for the man doing an appendicitis operation to get two or three internes and nurses, but if you have an obstetrical case which calls for special care, oftentimes only one nurse and this not a clean nurse, is supplied, although, of course, in most hospitals it is now the custom to supply a clean nurse as well. There should be at least two nurses, one clean and one who is not scrubbed up, and an anesthetist where an anesthetist is needed.

**Dr. W. E. Scott, Adel**—I consider this one of the most practical papers that has been presented before this Society for several years, and certainly one that should be discussed by many members. It brings home to us country practitioners some of the things we ought to do, and therefore we should be very much interested in it. Frequently we have to conduct these cases with very few conveniences at

hand, oftentimes out in the country, we have to do much of our work alone, and under these conditions I find it very difficult to use gloves because of the necessity of doing so many other things that do not pertain to delivery *per se*. Therefore it is necessary to frequently scrub the hands and use antiseptics during the labor. There is one question I would like to have Dr. Kelley answer, and that is why we have so many cases of retroversion of the uterus following comparatively normal labor. I think Dr. DeLee says in his fine work on obstetrics that every woman should be examined four or five weeks after labor, in the office of the physician or in the home, for the purpose of determining the conditions present. And I imagine this procedure is largely for the purpose of avoiding or correcting the retroversion which takes place so frequently following normal labor. Why this should be and how it can be prevented is, it seems to me, a rather pertinent question. Another thing that I want to speak of is in connection with the avoidance, where possible, of the use of instruments, which is responsible for so many tears; and that is the employment of intermittent pressure on the abdomen with the hands for the purpose of promoting labor and perhaps hastening it, thus doing away with the necessity of employing instruments in many cases. I must say that if one has practiced this he has found that it requires a great deal of skill to know just how and when to make proper pressure over the abdomen. If pressure is applied at the proper time and manner one can press with a great deal of force. This is a measure which, properly applied, facilitates labor very much and will prove of great benefit in many cases after one becomes experienced in its application. Certainly it seems to me to be a measure of real value and is one which is not, I believe, practiced by obstetricians generally.

**Dr. Kelly**—The idea of the paper was simply to call attention to the fact that these cases when sent to the hospital are not receiving the amount of attention that is due to patients who enter our hospitals. They pay the same hospital fees and should receive the same care as the surgical cases. As to cervical repair, when we have a case in the hospital and everything to do with, it requires only a second to examine the cervix, and if there is a tear of any magnitude at all it should be repaired at that time. As to the use of silkworm gut, doubtless I made the point in reference thereto a little too strong, but by using the subcutaneous chromic catgut in the skin and fascia beneath we have no suture outside at all. The knot is tied up behind the remains of the hymen and is really up in the vagina, and it makes no difference then what after-care the patient has in the way of local antiseptics. It is not absolutely necessary to give her the so-called aseptic care or to pour antiseptic solutions over the perineum after the bowel movements, as is usually the hospital order. This can be done at home and the patient have no trouble at all, and in the majority of cases healing occurs because the skin is practically closed by the

subcutaneous stitch and the blood and lochia which pass over the part really keep the tissues clean. As far as the country doctor is concerned, I think the biggest thing he does is to care for confinement cases, and he should receive more pay for this work than he gets, he should spend more time taking care of the cases than he does, and have more assistants. This is really a surgical procedure, and there is an opportunity for the practitioner in the country to make it a more important procedure if he so chooses. As to retroversion following normal cases of delivery, the physician usually assumes that in making post-partum examinations the uterus will be found to be retroverted in fifty to sixty per cent. of normal labor cases. While in the examination of a woman eight to ten weeks post-partum the uterus is found not to have fully undergone involution, is large, and, of course, would fall, the same examination made seven months after delivery would reveal the uterus back to its normal size and shape. If it is a movable uterus, whether retroverted or not, it should be the cause of no symptoms.

#### THE SAMUEL D. GROSS PRIZE, FIFTEEN HUNDRED DOLLARS

Essays will be received in competition for the prize until January 1, 1920. The conditions annexed by the testator are that the prize "shall be awarded every five years to the writer of the best original essay, not exceeding one hundred and fifty printed pages, octavo, in length, illustrative of some subject

in surgical pathology or surgical practice, founded upon original investigations, the candidates for the prize to be American citizens."

It is expressly stipulated that the competitor who receives the prize shall publish his essay in book form, and that he shall deposit one copy of the work in the Samuel D. Gross Library of the Philadelphia Academy of Surgery, and that on the title page it shall be stated that to the essay was awarded the Samuel D. Gross prize of Philadelphia Academy of Surgery.

The essays, which must be written by a single author in the English language, should be sent to the "Trustees of the Samuel D. Gross prize of the Philadelphia Academy of Surgery, care of the College of Physicians, 19 S. 22d St., Philadelphia," on or before January 1, 1920.

Each essay must be typewritten, distinguished by a motto, and accompanied by a sealed envelope bearing the same motto, containing the name and address of the writer. No envelope will be opened except that which accompanies the successful essay.

The committee will return the unsuccessful essays if reclaimed by their respective writers, or their agents, within one year.

The committee reserves the right to make no award if the essays submitted are not considered worthy of the prize.

WILLIAM J. TAYLOR, M.D.,  
JOHN H. JOPSON, M.D.,  
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## HOSPITAL ORGANIZATION

In a recent number of the Journal we published some observations on hospital activities by the Council of Education, American Medical Association. Such discussions are pertinent at this time as we observe an unusual activity in hospital construction. Until quite recently, the new hospital activity was in the direction of private institutions for the development of the surgical interest of local men. This may have been necessary as a pioneer movement, but we believed that the small private hospital would not serve the best interests of the communities and involved serious financial dangers to the owners in the way of damage suits. Recently, we observe that the hospital plan is of the nature of community hospitals, built and financed by the general public and to serve all classes of people. We have seen nothing yet to indicate the exact plan of administration, but we assume that funds will be secured to place these institutions within the reach of those who can pay only a small fee, or no fee at all, and through group activities on the part of the local profession, the various communities will secure better medical and surgical services than ever before.

In the larger and better organized centers of population, another important factor must be considered, and that is the educational factor. There is an increasing demand for a hospital year before the young medical graduate is permitted to practice. A number of progressive states already

require a hospital year in addition to the four years' course. It is scarcely necessary to say that the hospital year would be of but little value to the student if the hospital was not organized and equipped with proper means of instruction, and in the hands of a coordinated and competent profession. A hospital without an organized staff, with real authority, would be impossible so far as an interne is concerned. It may be held by an individual hospital that it cared nothing about the educational side of hospital work, but it will soon become apparent that a hospital for financial gain and incidental humanitarian purposes will take low rank and lose the most important and influential patronage.

It will be the purpose of the council through the state advisory board or independent of it, to investigate and classify hospitals with a view of determining the fitness of certain hospitals for giving the hospital year. There will be certain community hospitals well enough equipped both in scientific outfit and men, to make it profitable for fifth year students, and no doubt they will be classified accordingly. The Catholic Hospital Association is earnestly endeavoring to put their institutions on a proper basis and having a large experience and excellent organization, will probably occupy an important place. We have no brief for sisters' hospitals but certain facts are obvious.

From all parts of Iowa come the most encouraging information as to hospital activities, but we feel called upon to urge two things at least; thorough equipment and a provision for future support; second, cooperation on the part of the profession. Without cordial cooperation, the hospital will only be a boarding house for sick people.

## SIR AUCKLAND GEDDES TO BE PRESIDENT OF MCGILL UNIVERSITY

It is not generally realized that Sir Auckland Geddes, who has served during the war as Minister of National Service and Reconstruction, President of the Local Government Board, and a member of the House of Commons, is a physician. He has recently been elected principal of the McGill University. Sir Auckland Geddes was a pupil of Sir William Turner of Edinburgh, where he later became demonstrator and afterwards assistant professor. He was then promoted to a Professorship in Anatomy at the Royal College of Surgeons in Ireland, which he left to accept the chair of anatomy at McGill University. For the present he will continue his duties as Minister of National Service and Reconstruction, and has also been elected president of the Board of Trade. It is

expected that Sir Auckland Geddes will begin his new duties with McGill University in the autumn.—The Boston Medical and Surgical Journal.

Dr. Henry A. Christian, Hersey Professor of the Theory and Practice of Physic at Harvard University, has assumed in Washington, for the academic year 1919-1920, the position of Chairman of the Division of Medical Sciences of the National Research Council. Dr. Christian has been Physician-in-Chief of the Peter Bent Brigham Hospital, Boston, since 1911, and was Dean of the Faculty of Medicine of the Medical School of Harvard University from 1908 to 1912. He is a well known and active member of various national associations of medical men and of the American Academy of Arts and Sciences.

We are endeavoring to secure a complete file of the Iowa Medical Journal and we have obtained all but four volumes, namely, Volume 3, 4, 5 and 6, or for the years 1897, 1898, 1899 and 1900. If any one has these volumes for sale, please advise the Editor, as we hope to be able to furnish the State Library with as complete a file as possible, of publications by Iowa men. We would be glad to receive also copies of reprints from Iowa medical authors. Some day the contributions of the Iowa profession will be appreciated.

The medical department of Armour and Company has taken precautions among plant employes against a return of the "flu" epidemic in Chicago and other cities where the Armour plants are located.

All employes have been notified that without charge they may have the influenza vaccine administered according to the formula of Dr. E. C. Rosenow.

In addition to offering this vaccine free to employes, a general educational campaign along health lines and particularly with reference to the "flu" is being carried on among the workers in the plant.

Dr. Volney S. Cheney, medical director of Armour and Company, reports that the employes are taking an interest in the campaign.

### SOCIETY PROCEEDINGS

At the annual meeting of the Benton County Medical Association in Van Horne, Dr. Geo. Luckey was elected president of the association, and Dr. G. R. Woodhouse, secretary and treasurer, to succeed Dr. Geo. A. Wagner of Van Horne and Dr. J. P. Whitney of this city.

The Buchanan County Medical Society met at the Hospital, October 8, all county members together with the Manchester physicians being invited.

The Butler County Medical Society met at Clarksville, October 15. The following program was presented:

Significance of Uterine Hemorrhage about the

Time of the Menopause—Dr. W. A. Rohlf; Diagnosis of Gastric Ulcer—Dr. B. Ensley; The Present Status of Influenza Vaccines—Dr. H. N. Bruechert. After the program a banquet was held at the Methodist Church.

The Cerro Gordo County Physicians and Surgeons Society met at Mason City October 9 at the Chamber of Commerce. A large attendance was out for the meeting, about thirty-five being present. Drs. Wright, Scanlon and Phillips of Clear Lake and Dr. Henley of Nora Springs were the out of town members present.

The new members were taken into the society. Dr. DeVine was one and Dr. Chillson's application for transfer from the Worth County Society was accepted.

A number of important subjects were brought before the meeting. Among these was the new state law on the method and procedure of handling cases of social disease by the members. Several clinical cases were also discussed.

Dr. Stella Mason, president of the society, presided, with Dr. O'Brien as secretary. The meeting was a success from every standpoint.

The Cherokee County Medical Society met in September at the State Hospital and its program was devoted to epidemic influenza. The program was as follows: Historical and Geographic Review, Dr. R. G. Eaton; Etiology and Prophylaxis, Dr. C. H. Hall; Diagnosis and Clinical Course, Dr. Geo. A. Mauer; Complication and Medical Treatment, Dr. T. C. Knox; Surgical Treatment of Complications, Dr. C. H. Johnson; Ear, Nose and Throat Complications and Their Treatment, Dr. R. C. Sebern.

The Dubuque County Medical Society at the regular meeting held on Tuesday, October 14, passed a resolution pledging the support of members of the society to curb the drug evil and to do all in their power to cooperate with officials in carrying out the provisions of the Harrison law. The drug addict, in the belief of the local medical men, is morally and physically deficient and dangerous to life and property.

At the meeting of the Fort Madison Medical Society held recently at the office of Dr. Newlon the matter of an office building for the doctors of Fort Madison was considered by the members of the society, who decided that a building of this kind would be desirable for Fort Madison, although nothing definite was done about it in the way of plans.

The Fort Madison Medical Society met at the office of Dr. Newlon September 29. The question of how best to deal with the venereal question was discussed by Drs. Thomas Bess, R. S. Reimers and J. F. Chalmers, who were appointed for this purpose. The next meeting of the society will be held on the last Monday in October at the office of Dr. Traverse.

The regular annual meeting of the Iowa County Medical Society was held at Marengo, November 5. L. B. Amick, Millersburg, discussed "War Surgery;" W. P. Hutchins, Marengo, read a paper on "Medical Ethics;" and A. C. Moon, Williamsburg, presented a paper on "The Business End of the Medical Profession." Following the program, came a banquet. Officers for 1920 are: President, J. C. Patterson, Marengo; vice-president, C. F. Watts, Millersburg; secretary-treasurer, L. S. Deitrich, Marengo.

The Jackson County Medical Society met in Bellevue, Tuesday, October 14. Paper were read by Dr. E. R. Lewis of Dubuque, Dr. A. M. Pond of Dubuque and by Dr. Ed A. Hauske.

The Johnson County Medical Society held its November meeting at the Commercial Club rooms in Iowa City, Iowa, Wednesday evening, November 5, 1919.

Dr. J. H. Wolfe presented a paper on "Joint Angles and Ankylosis," in which he gave the main points in treatment of arthritis. It embodied the cream of the work done while Doctor Wolfe was in the orthopedic service of the Medical Reserve Corps. Dr. F. L. Love, formerly major in the Medical Reserve Corps, gave a paper on "Tonsil Infections complicating and following Influenza." He dealt particularly with the streptococcic infections and the development of acute foci in other parts of the body. This, too, represented the cream of the work that Doctor Love had done in service at Fort Riley and Camp Dodge. Three very interesting case reports were given: one, a case of diabetes and exophthalmic goiter by Dr. Mary K. Heard; one, a case of inverted temperature in lobar pneumonia by Dr. George L. Day of Lone Tree, and one, a case of syphilitic periostitis following trauma with recovery on specific treatment by Dr. Eli Browning of Mediapolis.

The Plymouth County Medical Society gave a banquet at the Union Hotel on October 9 in honor of Dr. G. H. Mammen, who is leaving shortly to follow his profession in Chicago. A five-course dinner was served after which an enjoyable impromptu program was carried out. The guests included several physicians from Sioux City, Hawarden, Akron, Remsen, Merrill, Granville, Kingsley, Marcus and Alton.

The regular meeting of the Pocahontas County Medical Association was held at Dr. Porath's office in Varina, September 30.

A large attendance of physicians was present at the opening fall meeting of the Polk County Medical Association at the Chamberlain Hotel. Addresses were delivered by Dr. F. R. Holbrook and Dr. William E. Sanders on The Modern Treatment of Wounds and War and Social Psychology.

The Poweshiek County Medical Society met at

Grinnell on Tuesday evening, October 14. Dr. E. S. Evans presented the paper of the evening on the proposed clinic to be established for the treatment of venereal diseases followed by a free discussion. Members present: Drs. Wilcox of Malcom; Chester and Crain of Deep River; Simeral of Brooklyn; Abbott of Newburg; Lauder, Bliss, Talbott, Buck, Somers, Padgham, Miller, Lewis, Parish and Harris of Grinnell.

The Story County Medical Society met at Ames, October 8.

A campaign for the issuance of \$70,000 worth of bonds for a county hospital for Warren county was started by the county medical association.

The hospital is to serve as a memorial for the soldiers and sailors which that county sent to the great war. The proposition comes to a vote on December 22, but the medical association is planning a campaign looking toward the thorough education of the people on the subject before that time.

At the meeting the principal speakers were Dr. Frank A. Ely and Dr. D. J. Glomset of Des Moines. Figures presented by the county auditor showed the amount required for the hospital could be raised by a tax of one mill.

Dr. Oliver Fay was host to the members of the Library Medical Club in the private dining room at Hotel Fort Des Moines. Twenty guests participated in the dinner, after which Dr. Fay read a paper, and business for the year was discussed.

The regular meeting of the Iowa Clinical Medical Society was held on October 25, at Sioux City. The clinic was held at St. Vincent's Hospital, Dr. C. P. Howard, of Iowa City presiding. Dr. E. M. Williams presented a number of neurological cases which were freely discussed. Dr. John W. Shuman presented a talk on "Contributions to X-ray Diagnosis," and demonstrated a number of interesting roentnograms.

The forty-third annual meeting of the Southeastern Iowa Medical Society was held at Washington, October 16. Drs. Edgerly of Ottumwa and Edgington of Washington related their experiences in the service, the latter having been in Berlin for a time. Dr. J. S. Gaumer of Fairfield, president, and Dr. F. S. Bonnell, secretary-treasurer. The following program was given:

10 A. M.—Society called to order by the president, Dr. J. S. Gaumer.

12:15—Society dinner.

#### Scientific Program

Treatment of Influenzal Pneumonia with Serum Convalescents—Dr. Geo. B. Crow, Burlington.

The Fifth Nerve and its Reflexes—Illustrated by means of stereopticon slides—Dr. Albert H. Andrews, Chicago, Ill.

Orthopaedic Surgery of the Hand—Dr. Arthur

Steindler, Iowa City.

A Few Complications of Caesarean Section—Dr. C. H. Magee, Burlington.

Nasal Pathology in Relation to General Disease—Dr. Geo. C. Albright, Iowa City.

Pernicious Anemia—Dr. C. A. Boice, Washington.

The officers elected were: President, Dr. E. T. Edgerly of Ottumwa; vice-president, Dr. H. C. Hall, Washington; secretary-treasurer, Dr. E. F. La Force, Burlington.

The society will meet at Ottumwa next year.

Program of the Southwestern Iowa Medical Association held at Creston, Tuesday, October 14, at the assembly room, Greater Community Hospital.

Meeting called to order 9:30 A. M.

General Order of Business:

Symposium on Obstetrics. Management of Labor—Dr. Leslie Lamb, Lorimor; Dr. V. E. Dudman, Centerville; Dr. J. W. Hill, Ellston; Dr. A. C. Page, Des Moines.

A Paper—Focal Infections—The X-ray Story—Dr. F. W. Sells, Osceola.

Symposium on Surgical Lessons of the War. Their Application to Civilian Practice—Dr. C. E. Ruth, Des Moines; Dr. A. C. Stokes, Omaha, Nebraska; Dr. E. T. Edgerly, Ottumwa.

Medical Team Work in Rural Practice—Dr. B. L. Eiker, Leon. Discussion opened by Dr. Sampson, Creston.

Address—Miss Katherine Olmsted, Chicago.

Rural Public Health Nursing, as Related to Rural Medical and Dental Practice. Questions of mutual interest to the doctor, the dentists, and the public health nurse were informally discussed, "Table-Round" fashion—Miss Olmsted, presiding.

President, Dr. G. I. Armitage, Murray; vice-president, Dr. R. E. Green, Creston; secretary-treasurer, Dr. Enos Mitchell, Grand River. Committee on Arrangements—J. G. Macrea, M.D.; F. M. Davis, D.D.S., Florence Compton, R. N.

The fee for life insurance examinations as adopted by the Poweshiek County Medical Society is five dollars. This fee goes into effect September 1, 1919.

A number of the present examiners for companies doing business in this county have notified their companies that the five dollar fee will be adhered to hereafter.

This is causing the companies to hunt for cheaper doctors, which they are doing.

A united front on this matter will be to the advantage of the profession and your attention is called to the rate we have all agreed upon. This includes fraternal as well as old line company examinations.

E. E. Harris, Sec'y.

A revision of the prices of medical fees to correspond with fees charged in other towns the size of Marshalltown was decided upon by the members of the Marshall County Medical Society at a meeting

October 15. A committee of doctors recommended changes and were authorized to make the following revisions: A minimum charge of \$1 for office calls; a charge of \$3 for day calls and \$5 for night calls, and a charge of \$25 for maternity cases. In the cases of patients who are unable to pay the full amount the doctors are to give charity service instead of taking a smaller fee. It was also decided to hold meetings the first Tuesday in every month in the future instead of quarterly as before, for the betterment of their business and medical interests.

Members of the society who served during the World War were the guests of the evening and gave talks on their experiences in the service following a banquet served at 6:30 and the business session. Twenty-seven members from the city and county attended the meeting and the following program was enjoyed:

The Man Who Remained at Home—Dr. W. S. Devine; Paper Work—the Delight of the Doctor—Dr. L. W. Pence; Broncho-Busting at Fort Riley—Dr. C. W. Patton; Entering an Army Hospital—Dr. J. F. Battin; On the Trail of the Hun—Dr. G. E. Hermance; Army Sanitation as Applied to Civil Life—Dr. A. C. Conaway; On the Other Side—Dr. R. C. Molison; The Man Who Served—Dr. Theo. Engle.

The officers are: President, Dr. R. R. Hanson; vice-president, Dr. W. S. Devine; secretary-treasurer, Dr. G. M. Johnson; delegate to State Society, Dr. N. Merrill; alternate delegate, Dr. Theo. Engle; censors, Dr. W. S. Devine, Dr. R. F. French.

The Victory Meeting of the Medical Society of the Missouri Valley was held at Hotel Fort Des Moines in Des Moines, September 18-19. It was the purpose of this particular convention to not only celebrate our recent victory in the great war, but also to express our pleasure and extend the right hand of sincere welcome to those of the profession who were safely returned and ready to re-enter the home service and the civilian practice of medicine and surgery.

The scientific program was an unusually interesting one, every essayist was present and responded excepting Capt. J. E. Wattenburg, who is yet in the service and had been ordered north a few days previous to the meeting.

During the intermission on Thursday, September 18, the doctors, their wives and friends, were guests of the Chamber of Commerce for luncheon at Younker's Tea Room, where they not only enjoyed a most delightful luncheon but were received to the city in a most cordial and hospitable manner by Mayor Thomas Fairweather and Dr. Lewis Schooler.

Following the banquet at 6:30 P. M., at the Hotel Fort Des Moines, the guests of honor for the evening, Lieut.-Col. Horace M. Evans of Washington, D. C., Dr. E. C. Rosenow of Rochester, Minn., and Dr. Frank Smithies of Chicago, were heard in most interesting papers illustrated with lantern slides.

Other guests of honor who were present and ap-

peared on the program Thursday and Friday were: Dr. Albert H. Byfield, Iowa City; Dr. Frank P. Norburg, Springfield, Ill.; Dr. Clifford G. Grulee, Chicago; Dr. B. B. Grover, Colorado Springs, Colo.

The contributions of these gentlemen were of characteristic high standard and were splendidly received by all present.

Friday afternoon was set aside for the symposium on medicine and surgery in the war, and was participated in by: Col. Donald Macrae, Jr., Council Bluffs; Lieut.-Col. Wilbur S. Conkling, Des Moines;



DR. CHARLES RYAN, Des Moines  
President Medical Society of the Missouri Valley

Capt. Frank L. Williams, Des Moines; Maj. Charles F. Smith, Des Moines; Maj. Thos. F. Burcham, Des Moines; Maj. Thos. G. Orr, Kansas City; Capt. Arthur F. Baratrud, Minneapolis.

The papers and discussions of this symposium were instructive and interesting.

The attendance was exceptionally good, considering the extremely bad weather and the condition of the auto roads, which were impossible at the time of the meeting, the latter fact making it impossible to make the trip by auto to Fort Des Moines as planned. Everyone was optimistic, however, and expressed himself as being entertained in a most delightful manner.

The following officers were elected at the annual election, September 19, for the ensuing year: President, Chas. Ryan, Des Moines; first vice-president, Floyd Spencer, St. Joseph, Mo.; second vice-president, Paul Gardner, New Hampton; secretary, Charles Wood Fasset, Kansas City; treasurer, O. C. Gebhart, St. Joseph, Mo.

### MEDICAL NEWS NOTES

The twelve lay nurses in Mercy Hospital, at Burlington, struck October 14 for higher wages, and walked out. Sisters of Mercy, who had been trained as nurses, filled their places till graduate nurses could be secured. Every vacancy was filled. Some of the striking nurses asked for reinstatement, but the board deferred action. The hospital is the largest Catholic institution in southeastern Iowa.

The new St. Lukes Hospital at Davenport that is being constructed on High street near Bridge avenue, was opened on October 15, according to information made public.

The United Lutheran Church Society has purchased the old Oaks hotel property at Clear Lake and will remodel the building for a hospital, at an estimated cost of \$300,000.

The Cedar Valley Hospital at Charles City has secured sufficient funds to resume operation.

The average man has started for the White House or the penitentiary long before he is twenty years old, declared Dr. William Jepson in addressing the Sioux City Rotary Club on the development and improvement of the human race. The speaker emphasized the need of proper environment for the child, and asserted that one remedy to remove the increasing number of human defectives in state and county institutions was that of sterilization.

Contractors have turned the new hospital over to the Sisters at Grinnell. The new \$150,000 building is now ready for use and will have a formal opening soon.

Five Iowans receive Serbian decorations: Dr. D. J. McCarthy, Davenport; Captain H. E. Hundling, Breda; Miss Mildred Williamson, Greenfield; Captain E. A. Schll, Mt. Pleasant; Miss Esther Rose, Des Moines.

The new state laboratory which is located in the Masonic building, Keokuk, and which is under the direction of Dr. Kelman of Iowa City, has added another member to its staff of workers. Irving Akerson, of 1802 Franklin street, Keokuk, is assistant to Dr. Kelman in her work. Mr. Akerson is a former high school graduate and also a student at Washington University, Pullman, Wash. He was recently

discharged from the army when he took the work at the new clinic. He assists Dr. Kelman with the laboratory test and the general work which is connected with the office.

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Dedicatory exercises of the State University Hospital of Oklahoma, were held Thursday, November 13, 1919, at the House of Representatives Chamber, State Capitol, Oklahoma City, Oklahoma. Addresses, from the state, Hon. J. B. A. Robertson, governor; from the state health department, Dr. A. R. Lewis, commissioner; from the State Medical Society, Dr. L. J. Moorman, president; dedicatory address, Jabez N. Jackson, M.D., F.A.C.S., of Kansas City, Mo.

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Indianola reports that the Warren County Medical Association will push a proposition for a \$70,000 bond issue, the proceeds to be devoted to a county hospital. The fact that it is to be a memorial to the soldiers and sailors of the county ought to make the plan doubly popular and it seems as if the plan would be endorsed by the citizens at the polls. There would be a memorial at once practical and patriotic.

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Ex-medical officers of the army residing in southwest Missouri met in July to form a permanent organization. The following officers were elected: President, Dr. William A. Delzell of Springfield; vice-president, Dr. Louis M. Edens of Cabool; secretary, Dr. Horace A. Lowe of Springfield; treasurer, Dr. James H. Fullbright of Springfield.—New York Medical Journal.

Plans are under way for the erection of an American hospital in Havana. The approximate cost will be \$300,000 of which \$150,000 is already available.—New York Medical Journal.

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An eight hour day for attendants will be given a trial in one of the larger hospitals in Paris, with a view to its adoption in all Paris hospitals, if it proves practicable. Such a reform would affect more than 12,500 persons.—New York Medical Journal.

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The Eleanor Moore Hospital at Boone, Iowa, has been taken over by Boone county. The hospital was built by Hon. S. L. Moore, a public spirited citizen of Boone, twenty years ago. Mr. Moore contributed largely to its support and now in consideration of a small sum voted by the county, turns it over for community service.

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Dr. Mary Gordon of London, who arrived here recently to attend the first international conference of women physicians in history, has for many years held appointment in the British civil service as inspector of prisons. She is also assistant inspector of states and certified inebriate reformatories. In these capacities she has supervision of all the prisons for women in England and Wales. Dr. Gordon has had a very large experience in the study of social dis-

cases, feeble-mindedness, mental instability, vagabondage and criminality, as well as alcoholism.

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A successful two days' medical clinic was concluded at Logan, Ia., on the evening of October 17 with a banquet provided by the Logan physicians as a compliment to the medical fraternity in the county and to those of the profession present from other parts of the state. The clinic was arranged by A. E. Kepford, representing the state department of anti-tuberculosis activity. Dr. Scarborough of Oakdale, director of the state hospital for the treatment of tubercular cases, had charge of the examinations. He was assisted by Dr. W. D. Runyan of Sioux City, who was formerly his assistant at Oakdale. Friday was devoted largely to the examination of children. This work was conducted by Dr. Alfred Byfield from the medical department of the State University. About seventy people were examined in the two days. Most of the physicians in the county were present during a part of this time—some of them during the whole session. Much valuable information was developed, not the least being the increased interest on the part of the people in health conditions and the possibility of improvements. One among the greatest needs of the present time is information disseminated among people concerning the wisdom of giving attention to incipient diseases of all kinds, especially pulmonary troubles.

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The cornerstone of the new main building of St. Thomas Mercy Hospital, Marshalltown, was laid Sunday afternoon with appropriate ceremonies. The program in connection with the placing of the stone was given on the hospital lawn before a large assemblage. The ceremonies were simple but impressive and the general theme of the speakers was the hospital, its history and its humanitarian purposes.

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For some time Dr. Kessel has had in mind a most magnificent gift to the city of Cresco in the form of a soldiers' memorial of some permanent character to be located in the city park adjoining the hospital grounds on the south. At a banquet attended by a large number of commercial and civic club members, Dr. Kessel made known his proposition. He offered to erect at his own expense a memorial in pergola design, with granite columns, tiled floor and slate roof if the city will pave the streets adjacent to the park. The estimated cost of the memorial is \$10,000 and the cost of the paving, it is estimated, will not exceed \$4,000.

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The citizens of Ogden are taking active steps to organize a community hospital in that city. The cost of sickness in private homes is becoming so great as to make such undertakings necessary.

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The voters of Henry county expressed themselves a short time ago, by a majority of 283 in favor of erecting a county hospital as a memorial to soldiers and sailors from that county. The proposition pro-

vided for the issuance of \$100,000 worth of bonds to furnish the necessary funds.

Dr. John Peck of Des Moines was elected president of the Mississippi Valley Conference on Tuberculosis at the session recently held at Hotel Fort Des Moines. Dr. William McN. Miller of St. Louis was elected vice-president, and Dr. A. T. Laird of Duluth, secretary-treasurer. Four members of the central council were re-elected: Sherman Kingsley, president, of Cleveland, Ohio; Alfred Henry of Indianapolis, Ralph J. Reed, secretary-treasurer, Des Moines, and J. W. Pettit, vice-president of Ottawa, Ill. The three new members elected were Dr. Ethan Allan Gray of Chicago, Dr. E. B. Pierce of Howell, Mich., and Mrs. E. P. Wanzer of Armour, S. D. Two persons are named on the advisory committee from each of the states in the conference area. Iowa's two members will be Mrs. Francis Whitley of Webster City and R. C. Ficke of Davenport. The clinical program at the Shops building had Dr. Vaughan of Ann Arbor as chairman. Speakers were Dr. H. R. M. Landis, Phipps Institute, Philadelphia; Dr. William Anderson, director of the Nebraska Tuberculosis Association; Dr. A. B. Moore, x-ray expert of the Mayo clinics in Rochester, and Dr. T. A. Burcham of Des Moines. Dr. Eugene Foster of Indianapolis, Edith Foster of Milwaukee and A. E. Kepford of Des Moines spoke at the sociological meeting at the Fort Des Moines ballroom. A demonstration clinic, showing tuberculosis in children, was made in room 330 at 10:30. Miss Mary K. Coady was chairman of the nursing section which met in the ballroom. Talks were made by Stella Becker of Decatur, Abbie Roberts of Cincinnati, Grace L. Anderson, superintendent of municipal nurses, St. Louis; Charlotte Ludwig, Cleveland; Elizabeth Rohrbach, Cedar Rapids, and Mrs. Francis E. Whitley, Webster City.

Appointments to the staff of the City Hospital, Des Moines, for the ensuing year have been announced by the board of trustees. The staff as named includes: Surgery—Drs. R. A. Weston, W. S. Conkling, D. F. Crowley, J. W. Osborn and Rodney Fagen; Medicine—Drs. G. E. Clift, Lena Meanes, Carl H. Carryer, R. L. Parker, William S. Carpenter, E. B. Winnett, R. F. Throckmorton, F. L. Williams and A. J. Booker; Obstetrics—Drs. F. B. Langdon and F. W. Rise; Neurology—Dr. Tom Throckmorton; Eye, Ear, Nose and Throat—Drs. H. C. Schmitz, Thad Minassian, G. H. May, R. R. Snyder; Pathology—Dr. Julius Weingart; Laboratory—Miss Pearl Spenswick and an assistant state bacteriologist; Attorney—H. W. Byers; Pediatrics—Drs. M. L. Turner and Fred Moore; X-ray—Drs. L. E. Dawson and T. A. Burcham; Genito-urinary—Dr. V. A. Ruth; Gastroenterology—Drs. J. L. Strawn and E. E. Morton; Tuberculosis—Dr. J. H. Peck; Anaesthetics—Drs. E. W. Lehman and Sophie Hinze-Scott; Dentistry—Drs. J. A. Hallett and C. Watts; Dermatology—Drs. Ed Posner and J. F. Auner; Psychiastry—Dr. Russell

Doolittle; Emergency Staff—Drs. L. E. Dawson, L. E. Allen and A. J. Lieber; Consulting Staff—Drs. A. C. Page, W. L. Bierring, C. M. Werts, D. J. Glomset, Charles F. Smith, J. J. Flannery, O. J. Fay, and R. F. Parriott.

### PERSONAL MENTION

Dr. O. W. King, formerly of Montezuma, who, since discharged from service in January, 1919, has been associated with Dr. Louis E. Schmidt of Chicago, will open practice in the Iowa building, Des Moines, limited to diseases of the genito urinary tract.

Dr. E. B. Bush of Ames, has been commissioned under the U. S. Public Health Service to look after the health of the returned service men in his district, including some three or four hundred vocational students at the Iowa State College, and Dr. B. G. Dyer, of Ames, has also been appointed to look after the eye, ear, nose and throat work for the same men. The physicians maintain their regular practice, giving a portion of their time to the public health service work.

Dr. Thomas S. Wand of Cedar Rapids announces himself as a candidate for railroad commissioner.

Captain J. W. Osborn has just been discharged from the service after twenty-five months' service in the medical corps. Most of the time he was stationed at Fort Riley, Kan.

Dr. J. S. Faumer of Fairfield is able to take up his practice after a protracted illness from sciatic neuritis.

Dr. Thomas F. Duhigg of the navy recruiting station returned to Des Moines after a month's leave spent in the west. He relieved Dr. John Morrissey who will return to Providence, R. I., to take up the medical practice he left at the beginning of the war.

Dr. G. H. Sumner, Dr. Wilbur S. Conkling and State Auditor Frank Shaw went to New Orleans to attend the American Public Health Association meeting there, October 27 to 30.

Dr. L. T. Curry announces his return to Waterloo and association with Drs. E. T. Alford, W. H. Bickley and E. I. Dunkelberg. Practice limited to general medicine and diagnosis.

After two years in the service, Dr. C. G. Baird of Cedar Rapids has received an honorable discharge, and will resume the practice limited to eye, ear, nose and throat.

Dr. A. J. Meyer returned to Hawarden from Chicago where he spent several days purchasing new equipment for the McAllister-Meyer Hospital.

Dr. W. B. Newton of Fort Dodge has removed to Cedar Rapids.

Dr. C. C. Bowie of Dedham has moved to Carroll and become a member of the Carroll clinic, doing hospital work.

Dr. R. F. Throckmorton has sold his fine hospital, practice and residence at Derby, and will remove to Des Moines where he will continue practice. Being

stationed at Des Moines during the war as one of the physicians connected with Camp Dodge, he has formed a large acquaintance in that city.

Dr. Julia Hill of Des Moines, after a year's service in the laboratory at U. S. General Hospital No. 6, Fort McPherson, Ga., received her honorable discharge and returned home November 1. While in the service, Dr. Hill had the rank of first lieutenant.

Dr. F. S. Spearman of Whiting, who for thirteen years has been secretary of the Monona County Medical Society, is spending the winter in the West seeking rest and recuperation.

Miss Edith Bender, formerly surgical nurse at the Ottumwa hospital, who has been overseas in the army nursing corps is returning to the local hospital to take up her former duties. Miss Bender went to Ottumwa from St. Luke's Hospital, Chicago. Miss Adelaide Lewis has arrived to succeed Miss Pearl Mothershead, as superintendent of the hospital. Miss Lewis comes from Chicago, where she has been an officer in the Presbyterian Hospital.

Charles R. Ryan of Des Moines was elected president of the Missouri Medical Society at the annual election held at Hotel Fort Des Moines. His election was unanimous.

Dr. and Mrs. Wilton McCarthy returned to Des Moines from a trip to British Columbia.

Miss Vivian Appleton and Miss Marjorie Jackson of Tama went to Labrador as members of the International Grenfell Association.

Dr. H. L. Saylor, city health officer of Des Moines has been nominated by Dr. Guilford H. Sumner, secretary of the state board of health, as assistant surgeon with the rank of lieutenant to Surgeon General Rupert Blue of the United States Public Health Service, to be recommended to the president for a commission.

Captain William Bradley of Leon returned from France where he has been serving with the American Expeditionary Forces for many months. Dr. Bradley has seen much service having been both in the first aid service at the front and in the big base hospitals. Before returning home he was stationed for several months at Brest.

B. E. Trey having returned from Montreal and the war, will re-locate in Iowa. He will be at Marshalltown hereafter, and will be associated with Drs. R. E. Keyser and W. F. Hamilton. He was graduated from Iowa City several years ago; spent two years in the Montreal General Hospital, and then became a first lieutenant in the U. S. Army.

Dr. Jeanette Throckmorton of Des Moines, who has been attending the world conference of physicians in New York City, went to Grand Forks, N. D., where she spoke on social diseases before the combined women's clubs of the state, the women of Grand Forks, and the girls of the state university. After returning to Des Moines, she will go to New Orleans to make a similar address before the women's clubs, and from there to Asheville, N. C., to speak before the southern medical society.

Maj. L. T. Curry, physician formerly associated with Drs. Alford and Bickley in the Black building, has returned to Waterloo after twenty-five months' army service, nine months of which were spent in France. Dr. Curry, as first lieutenant, was commanding officer of the local ambulance company when it went to Camp Cody, N. M., in 1917. He was made surgeon for the 109 Sanitary Train at that camp, ranking as captain. Dr. Curry later had an active part in fighting the influenza at Camp Dix, the epidemic delaying sailing of the 109th until October, 1918. When the sanitary train was returned to the United States Dr. Curry was detached and sent to Bordeaux for special work in medicine. In May, 1919, he was advanced to the rank of major, and shortly afterward given command of Camp Hospital 27. He will resume practice in Waterloo.

Colonel D. S. Fairchild, Jr., chief surgeon of the 42nd (Rainbow) Division was honorably discharged from the United States service at Fort Sheridan October 25 and has resumed practice in Clinton.

Prof. C. S. Chase has not resigned, as stated in a recent number of the Journal and will continue at the head of the Department of Materia Medica and Pharmacology, University School of Medicine.

Dr. Paul Gardner of New Hampton was elected first vice-president of the Missouri Valley Medical Society.

Dr. R. E. Gunn of Deep River has removed to Iowa City.

Dr. W. H. Jenks, formerly of Waterloo, after returning from army service in France, has located in Tipton.

Lewis T. Talley, M.D., of Diagonal, has removed to Marshalltown.

Dr. T. C. Cooper, recently discharged from the army medical service, has located in Ogden.

Dr. and Mrs. B. H. Criley, formerly of Dallas Center, after a visit at the old home, went to Des Moines Tuesday for a few days, then they expected to go on to Philadelphia before returning to their home on the Western coast.

Dr. F. A. Barber has located in Clear Lake and will limit his practice to eye, ear, nose and throat.

Dr. J. C. Belb, formerly of Hayes, Neb., has located in Correctionville.

Dr. H. F. Kiesting, formerly of Cresco, has located in Lehigh.

Dr. G. S. Westly of Northwood has been released from army service and has returned to resume practice.

Dr. J. R. Walker who has practiced in Fort Madison since 1904 has retired.

Dr. Thomas Bess, recently returned from army medical service, has resumed practice in Fort Madison.

Lieutenant Paul Stookey of Leon, who has been serving overseas in the medical corps, has arrived in the United States, and is now at Camp Dodge awaiting discharge from service.

Dr. H. L. Saylor, who resigned eighteen months

ago as city physician, was reappointed by city council of Des Moines. Dr. Saylor will succeed Dr. Rouse, who is on leave to Siberia. Since leaving the city Dr. Saylor has been surgeon for the Yeomen.

Dr. F. L. Nelson announces his removal from New York City to Ottumwa. Dr. Nelson has had sixteen years' experience in the active practice of medicine, hospital work and teaching in one of the medical schools of New York City, also one year overseas service in the army. Dr. Nelson will limit his practice to general surgery, operative gynecology and office work.

Dr. M. B. Galloway has returned to Webster City after fourteenth months' service at Camp Custer and at Plattsburg, N. Y.

Dr. M. L. Pindell of Macksburg has removed to Winterset to practice his profession.

Dr. N. P. Knight has returned to his home in Vinton, having recently received an honorable discharge from army service.

Dr. Park A. Findley, recently discharged from the army, where he was a captain of cavalry, has decided not to go to Mexico, and has located in Des Moines.

Major C. W. Lyons, Marne physician who went to France with the medical division of the American forces, will remain abroad to do medical work under the direction of the Red Cross.

Colonel George F. Juenemann, post commander at Ft. Des Moines, received orders that the temporary military hospital at the Fort would be discontinued October 15. The 800 patients would probably be sent to Ft. Sheridan, Ill. Col. Juenemann left October 1 for the Philippine Islands where he has been assigned to duty. Lieut.-Col. E. R. Gentry assumed command at Ft. Des Moines. Ft. Des Moines will probably be continued as a regular army post as before the war. The old Sixth Cavalry was formerly stationed there.

Dr. P. B. Battey, formerly of Council Bluffs, and who has recently been discharged from the army and returned to his position as member of the staff at the hospital for the insane at Independence, has resigned to accept the position of physician and alienist at the Connecticut state prison, at Hartford, Conn., and entered upon his new duties September 15. The offer of this position came to him as the result of his record in the psychiatric division of the army and is a decided advancement for him. It is understood that the place carries with it an attractive salary.

Captain and Mrs. L. H. Houten have gone from the Fort Des Moines reconstruction hospital to the surgeon general's office at Washington, D. C., where the former will have charge of the educational work in the hospitals of the country.

Dr. Corwin S. Cornell, who recently resumed his practice in Knoxville, after serving with distinction on the European battlefields, has received his commission as a major in the reserve corps of the U. S. Army.

Dr. C. A. Thompson, secretary-treasurer-editor, Journal Oklahoma State Medical Association, Okla-

homa, Muskogee, Oklahoma, has removed from Surety building to 508 Barnes building, Muskogee, Oklahoma.

Dr. C. E. Lowrey, who recently returned from the army where he was a first lieutenant in the medical corps, has decided to locate in Osceola, he being connected there with the clinic of which Doctor Sells is the chief surgeon.

Dr. Edward S. Parker and Dr. R. B. Armstrong have formed a partnership for the practice of surgery and medicine in Ida Grove. Dr. Parker, who was associated with the late Dr. J. E. Conn in this city for several years, has just recently been discharged from the army, after almost three years of service, he being among one of the first physicians to volunteer when this country entered the war. For six months he was located in Birmingham, England, in a base hospital, and was in Saveney Hospital in France for several months, and for more than three months has been stationed at Camp Dodge, Des Moines.

Wm. H. Harper, B.S., M.D., local colored young man, will soon leave Washington, D. C., to begin private practice of his profession in Iowa. He has been practicing medicine and surgery in Freedmen's hospital in that city.

Back from twelve years service as medical missionaries in the wilds of West Central Africa, Dr. Williams Cammack and Dr. Libbie Seymour Cammack are now on a year's furlough and are visiting with relatives in Fort Dodge. Mrs. Cammack is a sister of Miss Edith Seymour and Dr. F. E. Seymour of Ft. Dodge. Mr. and Mrs. Cammack are located in the province of Angola, better known as Portuguese West Africa. The province is about the size of the State of Texas, and has six mission stations. The stations are located within a few days of each other, distance being measured by days rather than miles because of the slow means of travel, thirty miles meaning a day's journey.

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## OBITUARY

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Dr. M. C. Terry died at his home in Brighton, August 6, 1919.

Dr. Terry was born in Washington, Iowa, May 13, 1845. He graduated from Rush Medical College in 1868, began practice in Louisa county and also practiced in Muscatine county. In 1879 he moved to Brighton where he was in active practice until an hour of his death. Dr. Terry was president of the Iowa Association of Health Officers for two years. He was a member of Washington County Medical Society, Iowa State Medical Society, a Fellow of the American Medical Association and also of the South-eastern Medical Association at all of which he was a frequent attendant.

Dr. Terry had frequently contemplated retiring from practice but had never found the place to stop, and was active up to ten minutes of his death.

(Continued on Adv. Page xviii)

# The Natural Coagulant of Blood

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## OBITUARY

(Continued from Page 420)

Dr. James McClance Schee of Eddyville, died at Halbur, September 22, 1919.

Dr. Schee was born in Athens, Missouri, November 6, 1860. Graduated from Keokuk Medical College in 1882. Located in Eldon, later removed to Eddyville, and practiced at Bentonsport and in Mt. Sterling.

Dr. J. J. Lindsay died at the State Hospital at Independence, Iowa, October 7, 1919. Since early in February, 1917, he had been seriously ill, both mentally and physically. He was given treatment in a sanatorium for several months early in 1917 and while there was served with notice of his wife's action for divorce. His relatives cared for him in Manchester ever since until a few weeks before his death, when it was decided best for him to go to the state hospital but his condition was not improved.

As a young man, Dr. Lindsay attended Lenox College at Hopkinton, and was graduated from Balyless Commercial College at Dubuque in 1879. He then studied medicine in the office of Bradley and Sherman in Manchester and attended the medical school of the State University, and later Bellevue Hospital Medical College, from which he was graduated in 1883. He practiced first at Greeley and went to Manchester in June, 1888, where he built up a large practice which continued until his physical breakdown in 1917.

Dr. G. S. Wilkins, an alumnus of the College of Medicine, Iowa State University, class of 1875, a resident of Brighton, died at Fairfield Hospital October 19, fifty-eight years of age.

Dr. Smith H. Hess of Sioux City, graduate of Rush Medical College, 1865, aged seventy-five years, for many years a wholesale druggist of Sioux City; died at the Presbyterian Hospital, Chicago, September 13, 1919, from embolism, three days after prostatectomy.

## MARRIAGES

Dr. Leo Kuhn of Decorah and Miss Helga Christianson of Atlantic. Captain Kuhn served in the medical department of the army and in France fourteen months.

Dr. Stanton Sherman and Miss Lillian T. Gnam of Carroll.

Dr. Eugene McCaffery of Maquoketa and Miss Margaret Carroll of Davenport.

Dr. Wayne A. Johnson, who has been located in Dubuque as pathologist at Mercy Hospital, was married to Miss Buella Burrell, the wedding taking place at Effington, Illinois.

Dr. A. V. Hennessey and Miss Marie Cornelius of Council Bluffs.

Doctor Jesse Trott Grayson to Miss Luzia Bettina, youngest daughter of Dr. and Mrs. John G. Thomas; all of Monticello.

Dr. Russell H. Payne of Des Moines to Miss Lois G. Marshall of Marshalltown, a registered nurse formerly in the employ of the Iowa Tuberculosis Association.

Dr. George Braunliet of Davenport to Miss Karen Beck of San Francisco. They were married in Manila, Philippine Islands.

## BOOK REVIEWS

## THE COMPOSITION OF CERTAIN PATENT AND PROPRIETARY MEDICINES

Compiled by John Phillips Street, Chemist in Charge of Analytical Laboratory, Connecticut Agricultural Experiment Station; 274 Pages; More Than 2500 Remedies; Over 3100 Analyses. American Medical Association, 535 North Dearborn Street, Chicago. Cloth, \$1.25 Postpaid.

During the past few years hundreds of "patent" and proprietary medicines have been analyzed with the object of giving the public information that would be of vital interest to it. This work has been done by federal and state officials and especially by the chemists of the American Medical Association. The information, unfortunately, has been scattered through many publications and, for this reason, has not been easily accessible either to the public or to officials. The purpose of Mr. Street's compilation is to remedy this difficulty, in a measure, by bringing together in one work an accurate record of published analyses. The book contains analyses (one or more) of over 2,500 proprietary medicines, including the most widely used and extensively advertised products offered to the American public. The analyses are published without comment and without prejudice and the compact form in which they are presented should prove of great usefulness to the physician, the pharmacist, the inspection official and the intelligent layman.

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